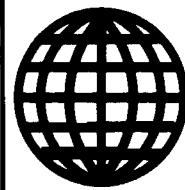
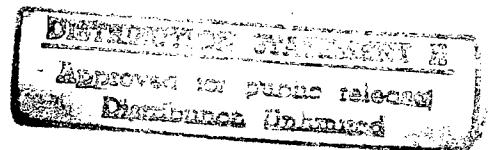


21 June 1993



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Chinese Foreign Minister Qian Discusses Security Issues in Tokyo

Talks With Counterpart

*OW2905141693 Tokyo KYODO in English 1353 GMT
29 May 93*

[Excerpt] Tokyo, May 29 KYODO—Chinese Foreign Minister Qian Qichen on Saturday [29 May] praised Japan's peacekeeping role in Cambodia, but urged the country not to neglect Asian concerns about its history of militaristic expansion, Foreign Ministry officials said. Qian, who arrived earlier in the day for a four-day official visit, also agreed in three hours of talks with Japanese counterpart Kabun Muto to Muto's proposal for a Sino-Japanese dialogue on security issues. [passage omitted]

Officials said Qian, who is also a deputy premier, agreed to Muto's proposal to begin a bilateral dialogue on regional security issues in the post-Cold War era as a means of boosting mutual confidence and enhancing stability in the region. But the Chinese foreign minister did not immediately agree to Muto's idea of a new bilateral forum for such a dialogue, they said.

While agreeing on the importance of discussing security issues, Qian said perhaps existing bilateral forums could be utilized rather than setting up a new venue for the purpose. Muto said the proposed talks would include senior officials of the two countries' foreign ministries, and possibly defense officials.

Qian was quoted as saying China considers it premature to start building new structures for a broader regional dialogue on security. He said bilateral security dialogues should begin first.

On the issue of North Korea's suspected program to develop nuclear weapons, officials said Muto and Qian agreed on the need for continued efforts to persuade Pyongyang to reverse its decision to withdraw from the Nuclear Non-Proliferation Treaty (NPT). The decision, effective on June 12, was announced after an ultimatum by the International Atomic Energy Agency (IAEA) calling on North Korea to open two suspected nuclear facilities for inspection.

Officials said the two foreign ministers shared a hope that progress on the nuclear issue will be achieved in upcoming high-level talks between Washington and Pyongyang so that expected moves in the United Nations Security Council to impose sanctions can be staved off. China remains opposed to any economic sanctions against North Korea. Earlier this month, it prevented the Security Council from inserting a threat of sanctions against North Korea into a resolution calling on Pyongyang to "reconsider" its decision to pull out of the NPT.

Officials said Muto called on China to cooperate further in international efforts to stem the proliferation of weapons of mass destruction, as well as missiles and missile technology. Qian also reiterated China's insistence that any international controls on weapons and weapons exports must be "rational, comprehensive, and balanced" before it will agree to them. He vowed that China, as a member of the NPT, will not transfer nuclear weapons technology to nonnuclear countries.

Officials said the Chinese foreign minister turned down Muto's request that China halt nuclear weapons tests, saying such tests are kept to a minimum and are less frequent than those of other nuclear powers. [passage omitted] Officials said Muto agreed to Qian's call for an early consultation on the problem of disposal of Japanese chemical weapons on the northeastern part of China, which Beijing says the Japanese Army left behind at the end of World War II.

Discussions With Miyazawa

*OW0106035993 Tokyo KYODO in English 0343 GMT
1 Jun 93*

[Text] Tokyo, June 1 KYODO—Japanese Prime Minister Kiichi Miyazawa and Chinese Foreign Minister Qian Qichen called Tuesday [1 June] for settlement of an international row over North Korea's planned withdrawal from the nuclear non-proliferation treaty, Japanese officials said.

In a meeting at Miyazawa's official residence, the two shared the view that a solution to the problem is essential to China and Japan, the officials said.

China Urged To Honor Arms Control Obligations

*OW0106050593 Tokyo KYODO in English 0451 GMT
1 Jun 93*

[Text] Tokyo, June 1 KYODO—Prime Minister Kiichi Miyazawa urged China Tuesday to honor its special responsibilities as a nuclear power by checking the spread of weapons of mass destruction, Foreign Ministry officials said. Officials said Miyazawa made the request during some 40 minutes of talks with Chinese Foreign Minister Qian Qichen, who arrived Saturday on a four-day official visit.

The request followed Foreign Minister Kabun Muto's urging in talks Saturday with Qian that China accede to the 28-member London guidelines, which govern exports of nuclear fuel and components that could be used for nuclear weapons development.

Some Western countries have criticized China for exporting nuclear technology to countries which have not concluded a comprehensive safeguards agreement with the International Atomic Energy Agency.

Officials said Miyazawa "reminded" Qian that as a nuclear power and a member of the nuclear non-proliferation treaty (NPT), China has a special responsibility to exert efforts to stem the proliferation of nuclear weapons.

On North Korea's decision to withdraw from the NPT, Miyazawa was quoted as saying it is an extremely serious issue from the standpoint of Japan's security.

Qian replied that China also attaches great importance to the matter as it wants to see a nuclear-free Korean peninsula. He said his visits over the past week to Japan and South Korea are part of China's efforts to tackle the problem.

Officials said Qian invited Miyazawa to pay an official visit to China.

21 JUNE 1993

CHINA

Qian Holds Press Conference

OW3105193093 Beijing XINHUA Domestic Service
in Chinese 1610 GMT 31 May 93

[By reporters Liu Wenyu (0491 2429 3768) and Zhang Huanli (1728 3562 0448)]

[Excerpt] Tokyo, 31 May (XINHUA)—Visiting Chinese Vice Premier and Foreign Minister Qian Qichen held a press conference at the Japanese Reporters' Club this afternoon. He answered reporters' questions on his trip's significance, some international issues, and Sino-Japanese relations.

Vice Premier and Foreign Minister Qian Qichen said: After 20 years of development, relations between China and Japan have entered a new stage, especially after General Secretary Jiang Zemin visited Japan and His Majesty the Japanese emperor visited China last year. Qian's trip is aimed at exchanging views with the Japanese on a series of important issues, including international affairs and bilateral relations. He said: I am very pleased that the visit has been a success and has reached a broad consensus. Both sides have agreed to hold special consultations on certain issues. He expressed his belief that his

visit will promote cooperation between the two countries in all fields.[passage omitted]

A YOMIURI SHIMBUN reporter questioned China's stand on the DPRK developing nuclear weapons and its withdrawal from the Nuclear Nonproliferation Treaty. Qian Qichen replied: China has persistently opposed the appearance of any nuclear weapons on the Korean peninsula. Therefore, China supports the joint declaration of denuclearization on the Korean peninsula issued by North and South Korea. In other words, the international community and relevant parties should make efforts to denuclearize the Korean peninsula. Meanwhile, China hopes that the Korean peninsula can have detente [huan he 4883 0735], peace, and stability, and maintain, without interference, a positive momentum toward relaxing tension on the Korean peninsula. The positive momentum has emerged in the past one or two years. Qian Qichen said: China, just like Japan, is concerned about the issue, but neither of us is a country that is involved in the matter. The North and South sides of the Korean peninsula are the involved sides. Both the DPRK and the United States, and the DPRK and the International Atomic Energy Agency, are involved. They need to make contacts, carry out negotiations, and hold talks. The talks have begun successfully, and China has hopes for them. [passage omitted]

NORTH KOREA

Yeltsin: Russia To Work for 'Nuclear-Free North Korea'

SK90906024093 Seoul CHOSON ILBO in Korean
9 Jun 93 p 1

[By correspondent Pak Tu-sik from Moscow]

[Text] Foreign Minister Han Sung-chu, while on a visit to Russia, paid President Yeltsin a courtesy call on the morning of 8 June in the Kremlin and conveyed to him a personal letter from President Kim Yong-sam asking for Russia's continued cooperation in resolving the North Korean nuclear issue.

President Yeltsin expressed his thanks and conveyed to the foreign minister an official letter inviting President Kim Yong-sam to visit Russia. He said he hoped President Kim would visit Russia in the near future.

To this, Foreign Minister Han said that "we cannot rule out the possibility of President Kim visiting Russia within this year." Thus, hinting at the possibility of initiating early diplomatic negotiations for President Kim to visit Russia.

According to a source at the Ministry of Foreign Affairs, "the issue of President Kim's participation in the UN General Assembly session in September and his subsequent visit to the United States is currently being reviewed." The source added that "President Kim may be able to visit Russia after that, either around the end of this year, or early next year."

At the meeting with Foreign Minister Han, President Yeltsin also said: Russia is greatly interested in developing partnership relations [tongbanja kwangye] with the ROK. Russia is promoting balanced diplomacy toward the East and the West and places great importance in cooperation with the Asian-Pacific region.

President Yeltsin said that "Russia stopped providing nuclear technologies to North Korea a long time ago" [imi oraejonbuto pukhane taehan haekkisul chiwonul chungdanhaewatta] and vowed that "Russia will make efforts for a nuclear-free North Korea" [haekmugi opnun pukhani toedorok noryok hagetta].

He then said that "Russia will encourage the functions [kinungul changryo] of the International Atomic Energy Agency [IAEA] so that the IAEA can keep its watch [kamsi] over North Korea's nuclear development."

Noting that "many issues need to be resolved in the future in order to resolve the issue of North Korea's withdrawal from the Nonproliferation Treaty, Foreign Minister Han asked that Russia continue to cooperate and make joint efforts for this."

In connection with the multilateral security system [taja anbochegye] in Northeast Asia, Minister Han said that "we welcome Russia's participation in the multilateral cooperation [hyopryok] system in Northeast Asia which we are now pursuing."

Minister Han will officially visit Poland until 10 June. He will meet President Walesa and invite him to visit the ROK this year.

Reportage on DPRK's 29 May Missile Test

ROK Press on Japan's Reaction

SK1306054393 Seoul SEOUL SINMUN in Korean
13 Jun 93 p 7

[Article by Tokyo-based correspondent Yi Chang-sun, from the "Correspondent Corner" column: "Japan's Sense of Terror for 'Nodong No. 1'"]

[Text] Japan, shocked by the successful test firing of North Korea's new-type missile, "Nodong No. 1," is seeking to build versatile defense systems. The representative effort for this is seen in its expansion of a defense network of "Patriot" missiles and in the introduction of a Theater Missile Defense [TMD] system.

Japan's action was prompted by its judgment that an overall reorganization of a defense network is necessary, because Nagoya, Osaka and other areas in west Japan are within North Korea's firing range with the development of the Nodong No. 1 missile which has a 1,000-km range. All of Japan is also within the range of the Nodong No. 2 missile, which will have more than a 1,300-km range when it is developed. In particular, Japan regards North Korea's suspected nuclear development, the development of a long-range missile, and the means for delivering the missile as serious threats to its security.

YOMIURI SHIMBUN on 12 June reported that according to "the new medium-range plan for adjustment of defense capabilities" which will begin from 1996, Japan decided to introduce the TMD system to reinforce its defense system.

The TMD system can observe an enemy missile when it is fired from several hundred kilometers to 1,000 km. It can notify the ground base of the missile's firing through a sensor launched in space and AWACS [Airborne Warning and Control System]. The TMD system is a defense system intended to repel the enemy's missile with anti-missile missiles.

This paper also reported that Japan will intensively deploy patriot missiles in west Japan in the event that the danger of North Korea's missile attack increases. In addition, Japan decided to hold unofficial consultations with the United States to work out measures to promptly obtain intelligence about North Korea from U.S. satellites. Japan has been operating patriot missile units in and around Hokkaido since 1990. Based on the 1992 budget, Japan is pushing for the introduction of patriot missiles with upgraded functions.

Some experts in military affairs, however, observed that North Korea's missile development does not present an immediate threat to Japan's security. They noted that North Korea's development of nuclear weapons has not been confirmed and believe that North Korea's technology for making small, highly efficient nuclear weapons that can be carried by the missile has not yet been developed. They observed that the current North Korean missile test was intended for such political purposes as promoting export

of its weapons, instigating disturbances among the ROK, the United States and Japan, using it as a test diplomatic card, and so forth.

Experts in military affairs do not attach great military importance to the North Korean missile issue. But the Japanese Government's reaction has been extremely sensitive, thus creating even a sense of crisis to a certain extent. The attitude of Japan's news circles is also the same as that of the government. Therefore, one has a feeling that North Korea's missile development is offering another justification for Japan's arms expansion.

Japan's Defense Agency Makes Initial Statement
*OW1406081293 Tokyo KYODO in English 0735 GMT
 14 Jun 93*

[Text] Tokyo, June 14 KYODO—North Korea appears to have conducted a new, 500-range-kilometer missile test in the Sea of Japan in late May, the Defense Agency said Monday [14 June].

The agency said pyongyang launched the missile on May 29.

Japanese Government sources said last Friday that pyongyang has developed and test fired the rodong-1 missile, which has an estimated range of 1,000 kilometers.

The sources said the missile traveled only 500 kilometers in the test, but is capable of hitting osaka from the northern half of the korean peninsula. North korea reportedly plans to extend the range of the missile to 1,300 kilometers.

Further Defense Agency Remarks on DPRK Missile
*SK1506012693 Seoul YONHAP in English 0116 GMT
 15 Jun 93*

[Text] Tokyo, June 15 (YONHAP)—The Japanese Defense Agency officially announced on Monday that North Korea must have test fired a medium-range missile over the East Sea [Sea of Japan] on May 29.

"We assume the missile may most highly be the medium-range ballistic missile Nodong-1, with a range of 1,000 kilometers, but cannot rule out the possibility of the Scud-C model that has already been deployed," it said.

"However, we cannot confirm whether the test was a success," the agency said.

Japan would strengthen its vigilance against North Korea and accelerate deployment of advanced Patriot anti-missile systems, it said.

"The two North Korean vessels, a frigate and a mine sweeper, that were spotted by a PC-3 Orion anti-submarine patrol aircraft by chance on May 29 in the East Sea are presumed to have been mobilized for assisting in the test," the announcement said.

The agency refused to go into details about how it came to know of the test, but said it presumed the missile was launched from around Nodong on the east coast of North Korea and traveled a distance of approximately 500 kilometers.

The agency gave indications that the U.S. Forces in Japan had confirmed the test launch, saying, "we have obtained more detailed information from the U.S. Forces."

SOUTH KOREA

U.S.-North Korean Talks

DPRK Denounces U.S. 'Threats'

*SK0906014393 Seoul YONHAP in English 0127 GMT
 9 Jun 93*

[Text] United Nations, June 8 [date as received] (YONHAP)—North Korea accused the United States on Tuesday [8 June] of resorting to threats and pressure when it agreed to negotiations and warned Washington that it would be responsible if the talks collapsed.

"It's just not possible that it was the United States who proposed the date for the third contact but then it announces a statement making threats," Ho Chong, North Korean deputy chief of mission to the United Nations, said.

Ho, in a meeting he requested with South Korean reporters, said he "cannot but be disappointed" if Monday's statement reflected the U.S. Government's position.

Pyongyang and Washington meet Thursday for a third round of talks on solving North Korea's nuclear problem. The United States at minimum wants North Korea to promise it will stay in the Nuclear Non-Proliferation Treaty (NPT).

Pyongyang's withdrawal from the NPT becomes official on June 12, and Thursday's contact is seen as the last negotiation before the international community start taking tougher actions on the communist regime.

U.S. State Department Spokesman Mike McCurry told a press briefing Monday that two previous rounds were disappointing. He said the United States and its allies would discuss sanction measures if the third round was also unfruitful.

"The United States should come to the third meeting with sincerity," said Ho, "the talks will find a compromise if the United States comes to it with an attitude of mutual respect, not of might."

'Transparent' Nuclear Program

*SK1106012593 Seoul YONHAP in English 0106 GMT
 11 Jun 93*

[Text] Vienna, June 10 (YONHAP)—North Korea, in preparation for its withdrawal from the Nuclear Non-Proliferation Treaty [NPT], is studying ways to prove to the world it is not developing nuclear weapons, North Korean Ambassador to Austria Kim Kwang-sop said Thursday.

Kim disclosed the North Korean effort at a press conference he gave for South Korean reporters at the headquarters of the International Atomic Energy Agency (IAEA).

Kim pointed out that the international community recognizes "the nuclear transparency" of some of the countries outside the NPT regime, such as Argentina and Brazil.

He said he could not disclose details of North Korea's efforts to make its nuclear programs "transparent," but the study by experts had reached a "considerable stage."

Nevertheless, North Korea would make no concession if its independence and dignity as a nation were invaded by other countries, Kim said.

If the United Nations adopted an unjustifiable resolution and imposed sanctions, North Korea would take appropriate measures, Kim declared.

Any sanctions, including against North Korea's economy, would be regarded as an invasion of North Korea's independence. Any sanctions would, therefore, have a direct effect on the situation on the Korean peninsula and relations between South and North Korea, Kim warned.

Although the North Korean nuclear issue had been taken up by the United States and other countries, it was basically a problem between South and North Korea, Kim said.

If top leaders of the two countries were ready to exercise political will, a decisive resolution to the problem could be worked out, Kim said.

With regard to North Korea's deteriorating relations with Russia, Kim acknowledged the adverse effect on North Korea's efforts to develop in the nuclear energy field.

"But now North Korea has enough personnel and technological grounds for independent development of its nuclear industry," he said.

Talks To Resume Late June

*SK1206052293 Seoul YONHAP in English 0504 GMT
12 Jun 93*

[Text] Seoul, June 12 (YONHAP)—North Korea and the United States will resume their high-level talks at the end of this month to tackle international inspections of Pyongyang's suspected nuclear facilities, Seoul officials said Saturday.

Washington has not yet decided whether to upgrade the level of the talks from Assistant Secretary of State Robert Gallucci, who represented the U.S. side during the four rounds of talks in New York this week.

The officials said Pyongyang had asked for the meeting to be upgraded to vice ministerial level, specifically asking for the U.S. representative to be Undersecretary for Political Affairs Peter Tarnoff.

Washington will watch during the coming two weeks or so the progress of negotiations between North Korea and the International Atomic Energy Agency (IAEA), which has a standing demand to see two key suspected sites near the North Korean capital that are believed to store nuclear waste materials.

South Korea and the United States still need to decide how much time they are willing to give North Korea to accept IAEA inspections of the suspected facilities and possible variations to the inspections, but the waiting time will not be beyond "couple of months," the officials say.

North Korea refuses to give the IAEA access to its suspected nuclear storage sites, claiming they are military installations.

Seoul and Washington are considering offering alternatives to special inspection as inducements for North Korea.

The officials say the alternatives include sending IAEA inspection teams with members from both South and North Korea or with members from politically neutral countries and opening up the same number of U.S. military installations in the South to the agency in exchange for access to the two sites in the North.

DPRK Head of Delegation Holds News Conference
*SK1206105793 Pyongyang KCNA in English 1040 GMT
12 Jun 93*

[“DPRK and USA Agree on Refraining From Nuclear Threat and Respecting the Other’s System and Sovereignty.” DPRK Delegation Chief Interviewed in New York—KCNA headline]

[Text] Pyongyang, June 12 (KCNA)—First Vice-minister of Foreign Affairs of the DPRK Kang Sok-chu, head of the DPRK delegation, called a press conference in New York on June 11 upon the conclusion of the talks between the Democratic People’s Republic of Korea and the United States of America.

Kang said that the talks were historical talks between the DPRK and the USA and they were held for long hours in a sincere atmosphere as the nuclear problem on the Korean peninsula was related to the policy of the United States toward the DPRK. “Policy matters concerning the emergence of the nuclear problem on the Korean peninsula were discussed at the talks,” he added.

He stated that the talks were not a commercial dealing for giving and taking something over the withdrawal of the DPRK from the Nuclear Nonproliferation Treaty [NPT], but were a political course dealing with policies. “This is proven by the joint statement adopted at the talks,” he said.

“It is a very important political matter that the sides at the talks reached an agreement on not presenting nuclear threat, on respecting each other’s system and sovereignty and not interfering in each other’s internal affairs,” he stressed, and said: “This agreement shows what the political cause of our ‘nuclear problem’ is.”

Noting that the sides decided to continue the talks to seek ways of carrying into effect the questions of principle agreed upon by the sides, the DPRK and the USA, in the joint statement, Kang said: “This is another affirmative success of the talks.”

Noting that in view of the importance of the talks the DPRK took an independent step of suspending the effectuation of its withdrawal from the NPT as long as it considers necessary, he said this step, like its measure of withdrawing from the treaty, is entirely an independent one.

Referring to the U.S. request at the talks that the DPRK should remain committed to the treaty and comply with

the safeguards agreement of the IAEA [International Atomic Energy Agency], he said this is a very serious matter related to the partiality of the agency against the DPRK.

He told the reporters that the sides agreed to discuss the question of partiality of the agency at the future talks.

A series of questions were raised at the press conference.

Answering questions put by reporters, the head of the delegation said the question of inspection by the IAEA during the period of the suspension of the decision to withdraw from the treaty entirely depends on the impartiality of the agency.

"It was decided that the sides should agree upon the question of next talks on a working level," he said.

He stated that it depends on the results of the talks and the impartiality of the IAEA what will become of the DPRK's step of suspending its withdrawal from the NPT, because it was taken to find a way for the realization of the DPRK-U.S. joint statement.

"The publication of the joint statement is the first of its kind in the relations between the DPRK and USA," he said, adding: "It is a historical event that the most acute policy matters were discussed and agreed upon at the talks."

PRC Radio Broadcasts U.S.-North Korean Statement

SK1206232093 Beijing China Radio International in Korean 1100 GMT 12 Jun 93

[Text] Korea and the United States issued a joint statement in New York on the afternoon of 11 June. The two sides, in the statement, announced that they have reached an agreement that Korea will not withdraw from the Nuclear Nonproliferation Treaty [NPT] for some time [chamsi]. The two sides also agreed to continue dialogue on the nuclear issue on an equal basis, the joint statement said.

The joint statement was issued after the four rounds of talks for the solution of the nuclear issue of the Korean peninsula held in New York from 2 to 11 June between the U.S. government delegation led by Gallucci, U.S. assistant secretary of state, and the Korean government delegation led by Kang Sok-chu, first vice foreign minister.

The joint statement noted as follows:

Korea and the United States have agreed on the three principles:

First, the two sides oppose the use of force, including nuclear weapons, and the threat of armed force.

Second, the two sides should execute the safeguards accord [anjon hyobui] precisely, respect each other's sovereignty, and should not interfere in each other's internal affairs to secure peace and security on the Korean peninsula free from nuclear weapons.

Third, the two sides support the peaceful reunification of Korea.

Following the issuance of the joint statement, Kang Sok-chu, first vice foreign minister of Korea, and Gallucci, U.S.

assistant secretary of state, each held a news conference. In the news conference, First Vice Foreign Minister Kang Sok-chu said that the joint statement came from the first discussion held between Korea and the United States and that, therefore, this had a historic significance. He then added that it marks a turning point in the history of relations between the two countries.

He went on to say that what matters in the solution of the problem of the Korean peninsula is whether the International Atomic Energy Agency will execute the safeguards accord [anjon hyobui] in a fair manner.

Assistant Secretary of State Gallucci told the reporters that the joint statement shows that the Korean peninsula has made a positive step forward on the way to denuclearization. He said that the United States hopes to negotiate with Korea continuously to resolve the nuclear issue of the Korean peninsula and that Korea will accept the IAEA nuclear inspections of Korea. He then added that the United States hopes that the political and economic relations between the United States and Korea will improve through the resolving of the nuclear issue.

ROK's Ambassador to UN Assesses Developments

SK1406030293 Seoul YONHAP in English 0138 GMT 14 Jun 93

[Text] New York, June 13 (YONHAP)—North Korea has agreed to impartial fullscope inspection in talks with the United States, meaning it will eventually accept inspection of its suspected nuclear facilities, Yu Chong-ha, South Korean ambassador to the United Nations, said Sunday.

Pyongyang-Washington talks in the near future will feature the same delegates as the New York talks last week but are expected to be in Beijing or Geneva, he said.

"The agreements are temporary in nature," Yu said, evaluating the North Korea-U.S. high-level talks. "North Korea turned away, for now, from bolting the nuclear Nonproliferation Treaty (NPT)."

"There was no progress on the nuclear inspection issue, but the two sides agreed on the principle, the principle of impartial, fullscope inspection. This was an important point earned for the U.S. side," Yu said.

After four rounds of talks, Pyongyang and Washington issued a joint statement, the first of its kind between the two countries, where North Korea said it was temporarily suspending its NPT withdrawal.

"The high-level meetings were in themselves a concession on the U.S. part," the ambassador said on what Washington gave in return for Pyongyang's decision.

"Washington's promise of respect for each other's sovereignty and non-interference in domestic affairs were also rewards, but they are all principles contained in the U.N. charter," he said.

The promise not to threaten or make nuclear attacks is part of U.S. basic policy, he said.

"North Korea agreed to impartial fullscope inspection. This means it will accept inspections," he said. "This will be the crux at future North Korea-U.S. talks."

North Korea apparently asked to meet in third countries, Yu said, because it did not want to talk with the U.N. Security Council looming in the background.

Russian Foreign Ministry Statement

*LD1506105593 Moscow ITAR-TASS World Service
in Russian 0945 GMT 15 Jun 93*

[By ITAR-TASS diplomatic correspondent Aleksandr Krylovich]

[Text] Moscow, 15 Jun—The Russian Ministry of Foreign Affairs welcomes the results of the United States-North Korean talks that ended in New York on 11 June and which focused on the problem of nuclear safety on the Korean peninsula, according to a statement circulated today by Russia's foreign policy department.

The foreign ministry emphasizes that the joint statement which pledges to refrain from the threat and use of force, to respect each other's sovereignty and not to interfere in each other's internal affairs, to support the peaceful unification of Korea and to apply impartially the full-scale guarantees for the non-nuclear status of the Korean peninsula, which allows room for hoping that one of the

serious problems worrying the world community recently will finally be resolved. The DPRK's decision to suspend its departure from the Treaty on the Non-Proliferation of Nuclear Weapons—in the conditions which have evolved—can be assessed positively. This decision, however, should be regarded as just the first step in the right direction.

In the view of the Russian Ministry of Foreign Affairs, in the course of further contacts with the United States—similar to contacts with the Republic of Korea and the International Atomic Energy Association, [IAEA]—the DPRK should confirm indisputably its participation in the Treaty on the Non-Proliferation of Nuclear Weapons and, as a consequence of this, fully observe the IAEA agreement on guarantees, including the carrying out of international nuclear inspections. In this context, we support the continuation of the American-North Korean dialogue which is aimed at seeking compromise solutions with a view to a de-nuclearization of the Korean peninsula. For its part, Russia confirms that it is ready to subscribe to the guarantees of nuclear states with respect to Korea should this question come on the agenda.

BRAZIL

Brazilian Press on Alcantara Space Launch Center
93SM0284Y Sao Paulo VISAO in Portuguese 12 May 93
pp 22, 23

[Text] It might seem excessive good fortune, but the cheapest place in the world for someone to launch a satellite into orbit is in Brazil. Experts estimate that within eight years this very site will be equipped to handle landings and take-offs of space shuttles—like the Discovery and Columbia—and launches of large rockets. The name of this base is the Alcantara Launch Center (CLA).

Planned by the Brazilian Commission for Space Activities starting in 1970, the Alcantara Launch Center offers advantages that, whether due to a lack of research or for geographical considerations, can be found nowhere else on the planet. Built on 240 sq km of land on the coast of Maranhao State, 22 km from the state capital of Sao Luis and protected by an extremely tight security system, the CLA permits flight operations that have a high degree of reliability because of the very stable temperatures in the region. However, it is more than a safe site featuring stable meteorological conditions and a paradisaical setting: Alcantara truly is an economic and technological trump card in several respects, a card handed to Brazil as a gift from Mother Nature. The reason is simple: because of its proximity to the equator, the base is endowed with the "catapult effect," a natural resource that facilitates lifting any apparatus into equatorial orbit, resulting in a 25 percent savings on fuel.

For example, a rocket that requires 2 tons of fuel to reach space from a launch site at Cape Canaveral in the United States would need only 1.5 tons if launched from Alcantara. To express this advantage in terms of money, this past February Brazil spent \$14 million to have the Americans put the SCD1, the first Brazilian-made data collection satellite, into orbit. The same operation would cost \$11.5 million at Maranhao.

Delay

The Alcantara base is the principal key that can open the door to independence in aerospace technology for Brazil. The plans of the All-Brazilian Space Mission (MECB) can be summed up into four stages: the launch base, the satellites, the satellite launch vehicles, and the tracking and control facility. Once these phases have been completed, launching a Brazilian space shuttle, for example, would cease to be a utopian dream to become, even if it were to take decades, a step that might be compared to that taken by the American Neil Armstrong, who 24 years ago placed a marker from the Earth on the Moon. However, to conquer space completely autonomously and keep its membership in the exclusive space club, Brazil will have to complete the only stage that seems to be a tricky one: building the Satellite Launch Vehicle (VLS).

That stage, now three years behind schedule, could even further compromise the Brazilian Mission plans to place three more satellites in orbit by 1996 without direct assistance from foreign technology. These satellites are the SCD2, the SSR1, and the SSR2 (the latter two are for remote sensing). The first answer to the delays in the

mission is related to a shortage of funds. From the time it was first designed in 1989, to the fourth phase of construction reached this past April with the launch of the VS-40—a sort of rocket used for experiments—the VLS has absorbed \$280 million. To complete it by 1995 would take another \$38 million, a sum there is no guarantee that the government will disburse. The greatest resistance to the success of the mission is tied, however, to a question of international politics that certainly has an economic connotation.

According to Tiago da Silva Ribeiro, director of the Aeronautics and Space Institute (IAE) [expansion as published], the agency responsible for developing the VLS, the Group of Seven (United States, Canada, Great Britain, Germany, Italy, France, and Japan) has been putting pressure on countries that are interested in achieving aerospace autonomy. A UN document entitled "Access to Outer Space Technology: Implications for International Security," a copy of which the IAE director has obtained, names Brazil as one of the countries that will probably encounter obstacles in rocket development and launching. The American press has published articles in which experts say they would not let the VLS be finished, Ribeiro charged.

More optimistic, Colonel Carlos Ancilon, director of the Alcantara Launch Center, insists: "There is plenty of coordination among the CLA, the IAE, and the Ministry of Aeronautics, and this will permit success by 1995." He agrees, however, that Brazilian autonomy bothers its competitors. The fact remains that while the Americans go into space to tinker repeatedly with their satellites as if they were working on the family car, and the Japanese lay plans to build a city of 100,000 people on the Moon in 2050, Brazil faces yet another challenge in asserting its creative spirit and showing that in terms of aerospace technology, it can be part of the First World.

Box p 23**The Catapult Effect**

The source of the catapult effect is strictly geographical. The closer the base is to the equator the more positive this effect will be and, consequently, the greater the speed an apparatus will gain when launched into space. Translation: at sites close to the equator, the movement of the Earth, which turns on its own axis, is slower and is prolonged by having to cover a circumference of 40,000 km. At an extreme point like Antarctica, the movement corresponds to zero degrees; there is no circumference because the extreme turns on itself as if it were a toy top. In practice, this means that a rocket launched from Alcantara or some spot very close to the equator achieves an initial speed of 1,300 km per hour. From Antarctica, for example, the tangential velocity is zero. This explains why Alcantara can perform the operation 25 percent more cheaply than Cape Canaveral, in the United States.

The Alcantara Launch Center, which is 2 degrees south of the equator, is the only site in the southern hemisphere that has the catapult effect. In Italy, this resource was being exploited at a small base that was later deactivated as obsolete and potentially unsafe. American and Japanese bases, among others, use the catapult effect, but do not exploit it to the same extent.

INDIA

Delhi Meeting Supports Arms Register Concept

93WC0071 *Bombay THE TIMES OF INDIA in English*
14 Apr 93 p 15

[Text] New Delhi, April 13—The concept of maintaining a global arms' register as a means of introducing an element of transparency in arms transfers and preventing excessive accumulation of weaponry, was endorsed wholeheartedly by the bulk of the parliamentarians, who participated in the plenary session of the 89th Inter-Parliamentary conference today.

Though generally supporting this idea, several speakers cautioned that if such an arm's register is to succeed, it must be non-discriminatory and should not have the reverse affect of threatening the security of smaller nations.

The Indian delegate, Mr Atal Behari Vajpayee referred to the increasing incidence of international terrorism which is being supported by the illicit transfer of arms across states and wanted the conference to see how the U.N. register on arms could address itself to this particular aspect which would require a degree of monitoring. He expressed concern over the fact that even though the cold war was over, the problem of clandestine transfer of weapons had actually assumed a greater dimension, resulting in the resurgence of ethnic and religious strife.

Mr Vajpayee made an oblique reference to the fact that the western countries had shown no inclination to slow down their arms transfer. The Zambian delegate, Mr M.C. Sata, however, was more forthright in flaying the western nations which, according to him, had no real claim to monitor the arms transfers for it is they who sell and give arms to other countries to achieve their own political ends. Mr Sata made a forceful plea for India's inclusion in the U.N. security council which is presently dominated by the West and their allies, adding that India's presence in the council would rest in greater representation for the developing nations.

Some countries chose to digress from the subject with Iraq using the forum for decrying the U.S. for waging a chemical war against it and persisting with the unjust blockade against it. Yugoslavia pointed an accusing finger at the countries dominating the U.N. security council who, it was stated, had not done enough to stop the illicit entry of arms into former Yugoslavia, which was giving the impression that the U.N. was increasingly becoming an instrument of certain countries.

The Pakistani delegate, Mr H. Akhtar Khan, however, felt that "if care is not taken, transparency in armaments can have a destabilising effect and threaten the security, particularly of smaller and vulnerable states, placed in a hostile environment."

Mr. Peng Gingyuan, a member of the standing committee of China's National People's Congress, said it was not advisable to insist on uniform fiat as different countries and regions faced different political, military and security conditions.

In the proceedings yesterday the conference deferred a decision on membership of Peru until Saturday while

restoring membership status of Algeria. The council also decided to lift the suspension of Algeria with 106 votes for, 17 against and 34 abstentions.

Slovenia, Kazakhstan, Azerbaijan, Nigeria, Burkina Faso and Marshal Islands were yesterday admitted as full members of the IPU while the Czech and Slovak republics were given separate membership.

A host of countries have submitted draft resolutions to the conference, all calling for adoption of legislation and administrative procedures which stringently defined the modalities for arms transactions and asked parliaments to play an active role in the elaboration and supervision of such legislation.

France asked arms supplying countries to step up their coordination efforts with a view to avoiding arms proliferation and preventing the use of civilian technologies for military purposes.

The United Kingdom, in its draft resolution, supported the establishment from January 1992 a universal, non-discriminatory register and implementation of recommendations made by experts for the future expansion of register.

The five Nordic countries of Denmark, Finland, Iceland, Norway and Sweden expressed deep concern over purchase of arms pursued at the expense of the economic and social development of countries in the third world and the fact that arms could be used for violation of human rights.

Germany, in its draft resolution, urgently called parliamentarians of all member states to monitor adherence to the obligations assumed with regard to conventional weapons reductions based on international agreements.

Egypt, Canada, Switzerland, Venezuela, the Andean parliament, Ireland, Cameroon, the Philippines and Kenya were the other countries which submitted draft resolutions extending support to the register and calling upon parliamentarians to exercise their influence to have it implemented.

ISRAEL

Interview With Shalhevet Friar

93WC0076A *YEDI'OT AHARONOT in Hebrew*
5 Apr 93 pp 40-43

[Interview with Shalhevet Friar by Shlomo Nakdimon; place and date not given: "Shalhevet Is No Friar"]

[Excerpts] In 1971, a short, spectacled, and silver-haired man was appointed to the position of chairman of the Israel Atomic Energy Commission. Then, like today, the man was totally unfamiliar to the public at large. His unusual name, Shalhevet Friar, merely reinforced the curiosity regarding the identity of the man of German Jewish descent, heading one of the most important and secret projects of the State of Israel.

Five and a half years later, Shalhevet Friar sent a personal letter to the members of the cabinet, a few words with a sharp and clear message: "Pursuant to the request of the

minister of defense, Shim'on Peres, the prime minister, Yitzhaq Rabin, has decided to fire me."

Nakdimon: Why were you fired?

Friar: "I was not capable of executing policy that was contrary to my beliefs."

Nakdimon: The prime minister, Yitzhaq Rabin, who was in charge of you, supported your position.

Friar: "True, and he said so, too, but the demand by Peres that I be removed from the position took precedence."

Shortly after he was fired, Yitzhaq Rabin held a luncheon in his honor, with the participation of the members of the cabinet. Peres held a reception within the defense establishment. The confrontation between them became apparent at this event.

Peres: "I cannot work with Shalhevet, because whenever an argument breaks out between us, he is the one who decides when to end it. He pulls a verse out of the Bible and leaves the room."

"Shim'on," Friar turned to Peres, "it was difficult for me to work with you, because you followed the rule of Napoleon: first, get into trouble, and then find a way to get out of it. Napoleon was successful with that several times, but it also caused him failure."

Friar was removed as the head of the committee, but he always remained close to the atomic issue. In 1980, during the discussions about the bombing of the reactor in Iraq, Friar was invited to participate in a committee of experts headed by Aharon Yariv, which discussed the nuclearization of the Middle East. Friar maintained that there was no need to bomb the Iraqi reactor. He believed that preventive actions could be taken in other ways—actions that would prevent the reactor from becoming active and dangerous for Israel.

Nakdimon: Do you see things differently now?

Friar: "Yes. In a discussion that recently took place in Boston on the nuclear issue, I told the American hosts: you forbade a war against Iraq on the grounds of the occupation of Kuwait as an oil country. Only after the war did you find out how Iraq developed an entire nuclear industry under the nose of the international nuclear supervision. I heard from you how commercial elements in the United States received permits from the U.S. Office of Commerce to provide the Iraqis with material for nuclear development without receiving the approval of the Pentagon. On the other hand, you punished Israel after the bombing of the reactor. All of this indicates that Israel does not have anything or anybody to rely upon, except for its own judgment."

Nakdimon: And if the United States offers us international guarantees?

Friar: I see before me the guarantees that we received in 1956 from the United States, France and Britain, and how they were violated in 1967. I told the Americans: we, the Israelis, do not want to reach Kuwait's situation, to be occupied before they come to liberate us. In general, we are doubtful whether anyone would come to liberate us in such a situation.

Nakdimon: Why don't we sign the nonproliferation treaty?

Friar: The whole issue of international supervision must undergo fundamental change. I express the Israeli position in international forums, supporting a Middle East devoid of nuclear weapons. This will only become a probability when all of the problems pending between us and the Arabs that are likely to lead to war are solved. The Arab countries have not responded to Israel's invitations to begin to discuss a clean peace (clean of nuclear weapons) with it, and they are exerting pressure on Israel to open its nuclear installations to international supervision. It seems to me that they are asking to place us under supervision in the nuclear area so that their hands will be free to wage wars against us with the knowledge that they have nothing to fear from us in the nuclear realm.

Nakdimon: What do you advise decisionmakers in the Israeli Government on this matter?

Friar: A very simple thing: as long as the Arab countries do not declare that they accept us in the Middle East just as we are, we cannot believe their intentions.

Nakdimon: To what extent is the fear that Iran is becoming a nuclear power a serious one?

Friar: The Iranians are aiming to establish a military nuclear industry. Currently, they do not have suitable equipment, but they are acting to obtain it.

Nakdimon: On the black market?

Friar: One does not receive atom bombs as a gift. There are recurrent rumors that North Korea is helping them. In the nuclear industry of the former Soviet Union 900,000 people were employed. Between 5,000 and 7,000 of them are familiar with all of the manufacturing processes of the bomb. There is a common assumption that some number of them will find their livelihood in the Middle East. A survey was held in Russia among the nuclear workers, and they were asked to answer the question of who would be willing to hire his services out to foreign countries. Two-thirds responded positively. Twenty percent said that they were willing to work in any country. One thousand people is a large number. They have know-how, and they can smuggle accessories, equipment, and material.

Friar never married and almost always lived alone, secretive and mysterious. Affiliated with the intelligence services and defense establishment of the State of Israel, active in various defense affairs directly and behind the curtains. He is a signatory to the purchase of the Israeli nuclear reactor in France and related to every nuclear project that Israel has performed, always far away from the media and public relations. This week, on the eve of Passover, at age 72, he recalls, for the first time, several affairs that he says can already be spoken of. The story about the Nazi officer still excites him. [passage omitted on Friar's youth]

The prime minister, David Ben-Gurion, and the director general of the ministry of defense, Shim'on Peres, proposed that he [Friar] serve as director of the research and planning branch of the ministry of defense, which eventually became known as the Weapons Development Authority-Rafael. Shalhevet headed the branch until 1956, and was among the trendsetters of the institute that was so

advanced in the development of sophisticated weapons. Friar is recorded as the first in the annals of the organization to submit a plan for the development of missiles. The first development was of sea to sea missiles with a range of 25 km. [passage omitted]

Even then, at 36 years of age, Friar was deeply involved in the development of atomic energy in Israel. In the fall of 1956, on the eve of the Kadesh campaign, Peres and Professor Ernest Bergman, then the chairman of the Atomic Energy Commission, invited him to serve as a scientific adviser at the Israeli Embassy in France. The ambassador at the time, Ya'akov Tzur, was not in favor of the appointment, which had been forced upon him from above, and he announced that he did not have an office for him.

In response, Friar announced that he would settle in the corridor in front of the ambassador's office, and even started to bring a desk over. The ambassador understood that his opposition would only get him involved in an unpleasant affair. Shortly thereafter, the office of the scientific adviser became a crowded site. The scientific adviser is the signatory on the agreements for the establishment of the nuclear research site in Dimona. "Everything that I did," Friar seeks to emphasize, "was on the basis of the relationship between the two countries that Peres built."

After completing his job in Paris in 1960, Friar returned to Israel and resigned from the ministry of defense in the wake of differences of opinion—that he terms "of principle"—with Peres. At this stage, he began to study at the Weizmann Institute for a master's degree in physics. Afterwards, he was appointed as the deputy to the director general of the institute. In 1971, he was appointed the chairman of the Israel Atomic Energy Commission.

Friar is not willing to volunteer even a bit of information regarding the content of the position that he filled for five and a half years. The last chairman of the commission, Dr. Yona Ettinger, testified that, during this period, he had built a scientific infrastructure that facilitated analysis, judgment and assessment of our scientific achievements...at the same time he initiated and formulated a political perspective on matters of atomic energy that is compatible with the needs and limitations of the State of Israel."

Upon completion of his position, Friar remained connected to the atomic issue and the defense establishment. Over the years, he served as a liaison to the Soviet Union. Secret activity by a lone wolf who does not go out to social events, almost without friends, always without a wife and, despite the solitude, well liked by everyone who has worked with him.

Nakdimon: May I ask why you did not have a family?

Friar: There is no special reason. I do well with my life. Sometimes, I am a good uncle to the children of my brother and sister. It is good for them that I know a little physics and mathematics. It seems to me that the upbringing that I received made me a separatist. My father wanted to keep me from assimilating. On the Sabbath, I would go to the first service in order to make it to school. My father did not want me to join a youth movement. All

of these things had an impact on personality, and sometimes I think that I am happiest mainly when I am by myself.

Box, p 43

The Russians Did Not Trust Rabin

Now it can already be disclosed that from 1970-1985, Friar served as an unknown liaison between Israel and the Soviet Union. The Soviets became acquainted with Friar within the framework of his activity in Pugwash an international association with the objective of worldwide nuclear disarmament.

At a convention of Pugwash that took place in 1970 in the United States, Friar was suddenly invited to have dinner with the Soviet delegation. A short, chubby Soviet, Dr. Yevgeny Primakov, attracted Friar's attention. Primakov was then the head of the Institute for Asian Studies at the Soviet Academy of Sciences, and he is currently the head of Russian intelligence. The special status of the Russian was clear to the eye: he was never accompanied by KGB agents.

At the end of a routine dinner, Primakov directly asked to send messages to the Government of Israel through Shalhevet Friar. Friar wondered why Primakov had chosen him, in particular, to transfer messages. "I assume," he said, "that you have additional channels of communication. Political messages can be transferred via Ambassador Yitzhaq Rabin in Washington."

"Rabin," responded Primakov, "is out of the question, because he reports his conversations to the Americans."

"Then perhaps Yosef Tekoah, the ambassador to the United Nations," proposed Friar.

Primakov: "Our ambassador to the United Nations held secret meetings with him, but the media discovered them."

Friar understood that Rabin and Tekoah were finished, as far as the Soviets were concerned, and he had been chosen by the Soviets. He tried to evade them, explaining that he did not belong to the decisionmaking leadership in Israel.

Apparently, Moscow had a different assessment with regard to Friar's importance. "We know very well that your status is higher than you are telling us," Primakov responded. In a long monologue, he delineated the policy of the Soviet Union. He accompanied his statements by prefacing that "decisions in my country with regard to the Middle East are not made without asking my opinion."

Primakov told me that in the Six-Day War, the Russians had lost their credibility with the Arabs and, therefore, they had to restore it. From our perspective, he said, the best thing is another war in the Middle East, in which the Arabs, Israel, and the Soviet Union would be involved. In this case, we could guarantee an Arab victory. But we do not know how the Americans would react, and we do not wish to become involved in a war with them. Therefore, another war in the Middle East is out of the question.

Primakov suggested that Israel and the Soviet Union reach an understanding. Friar asked Primakov if he was entitled to accompany him on a visit to Israel and transmit what he had said directly to the prime minister. The positive answer was given immediately, indicating independence

NEAR EAST/SOUTH ASIA

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from the KGB. Friar telephoned the prime minister and obtained his permission "to bring" Primakov with him.

Primakov was put up in a special apartment in Israel. He was brought to the home of the prime minister, where half of the members of the cabinet awaited him. The foreign minister, Abba Eban, proposed that Friar participate in the meetings, but he refused. Toward the end of his stay in Israel, Primakov asked to spend his last need in Israel in the company of Friar. They met someplace on Hayarkon Street, and at Friar's suggestion, they watched a movie during the course of their conversation.

Friar's relationship with Primakov continued until 1985, at various places throughout the world, including the Soviet Union. Over the course of these years, the guest arrived for additional visits to Israel, in which he met with prime ministers Yitzhaq Rabin and Menahem Begin.

Afterwards, Friar continued to meet with Primakov's replacement in Pugwash, KGB General Pavlichenko.

Pavlichenko told Friar in 1985, in Sweden: "Allow me to tell you what we in the Soviet Union think of your government. You are not smart. You have military accords with the United States. Why do you speak of these accords? When your prime ministers and minister of defense make a declaration, the Iraqis and the Syrians and the Libyans immediately come and say to us: give us more. We have to give, but they do not pay. These statements by your leaders do not add anything to your security, and it causes us financial harm."

Nakdimon: What did you do with the statements that you heard?

Friar: I reported Palichenko's statements to Israel and, it seems to me that, over a certain period, they stopped talking.

GENERAL

CIS Conference Views Dual-Purpose Technologies, Equipment

LD0306121193 Moscow Russian Television Network in Russian 1000 GMT 3 Jun 93

[From the "Vesti" newscast]

[Text] CIS countries signed an accord in Minsk on 26 June 1992 on controlling raw materials, components, equipment, technologies, and services which could be used to develop weapons of mass destruction. A CIS conference on the nonproliferation of dual-purpose technologies opened at the Russian Foreign Ministry today.

[Correspondent A. Filippov] Delegations from Russia, Ukraine, Belarus, Kazakhstan, and Armenia have gathered to develop a joint system for monitoring the export of such technologies. For the time being, because of Cocom [Coordinating Committee for Multilateral Export Controls] bans, Commonwealth countries are losing millions. They cannot launch satellites for Western customers or purchase the latest computers, medicines, vaccines, chemicals, or technologies to produce them because these products are on international restriction lists, the Commonwealth borders are transparent, and Western partners cannot be sure that these products will not be resold to potential aggressors or terrorists.

To prevent this Russia has drawn up national lists of restrictions which will be handed to former Union republics at the conference so that they can develop their own systems of export controls.

This will help the CIS to integrate into the world community. Russian Deputy Foreign Minister Grigoriy Berdennikov said in an interview with a "Vesti" correspondent that the nonproliferation of dual-purpose technologies is very important since we all are interested in keeping peace. [video shows conference; shot of a page with the heading "List of equipment, materials and technologies used for developing missiles which can be exported under license and supervision" which describes itemized missile systems with a range of 300 km and over; interview with Berdennikov]

Russian Nuclear Power Minister Interviewed

LD0406001893 Moscow Russian Television Network in Russian 1934 GMT 3 Jun 93

[Interview with V. N. Mikhaylov, Russian Minister for Nuclear Power Engineering, by correspondent Aleksandr Peslyak; place and date not given; From the "X" program—recorded]

[Text] [Caption reads: "Is nuclear disarmament safe?"]

Peslyak: Some time ago in our commentaries we spoke about the problems of nuclear danger in conditions of nuclear disarmament. The minister agreed to reply to a number of questions:

[Begin recording] Peslyak: Where is the money coming from? Was there any before? Is there any now? Were any credits granted at any time, and are any credits being granted now, including from abroad?

Mikhaylov: I'll begin by saying that the dismantling of nuclear munitions is carried out by enterprises of the Ministry of Nuclear Power Engineering, precisely those enterprises which previously produced this type of munitions. It must be said that the process of dismantling was developed virtually in parallel with the development of new models of nuclear weapons. Since the service period of nuclear munitions is from 10 to 20 years, then naturally over that period we were always carrying out the dismantling of nuclear munitions but not on a large scale. Carrying out this process on a large scale began in 1987 and the scale of dismantling nuclear munitions increased particularly over the past two years.

I could cite figures indicating that, whereas at the start of 1986 we had over 40,000 nuclear munitions of all types, absolutely, for all arms of the forces, today this number has decreased by virtually 15,000 nuclear munitions. Considerable work on dismantling has been carried out over the past year, 1992. The scale of this process is very great.

[Caption reads: "In 1993, 20 percent more nuclear munitions will be rendered harmless than in 1992, when about 3,000 nuclear munitions were dismantled"]

What problems are there? Well, this was always a state program and it was financed from the state budget. The amounts being received are miserly and we are maintaining these enterprises on starvation rations. We have only four such enterprises which previously engaged in producing the relevant munitions and now in dismantling them.

[Caption reads: "The average pay of those working at enterprises of the Ministry of Nuclear Power Engineering of the Russian Federation is 39,000 rubles (R) per month, and for those occupied in dismantling nuclear munitions, R28,000 per month"; Video shows missile being dismantled].

I would like to add that the process of dismantling is a very complicated one. Some people might think that it is simply a matter of carrying out all the operations in reverse order. Not at all. First of all, on training models from which nuclear active materials and chemical explosives are absent, the process of dismantling is fully described along with possible situations which could arise during dismantling.

The process of dismantling the nuclear munition is an operation which is not only difficult from an engineering and technical point of view, but is also very dangerous because the nuclear munitions have been in storage, in military units, for 10, 15, 17, or 20 years. Microscopic cracks and microscopic defects appear in many parts and assemblies.

There is also another problem. We do not have good storage facilities for the active materials which are removed and in the first instance for plutonium-239. Well, naturally, you can ask what the ministry was doing, why the question was not raised in good time about storage facilities and why we did not build them.

Peslyak: These questions are being raised not so much by me as by the Russian Nuclear Inspectorate.

Mikhaylov: I will give a very simple reply to this question. The question of storage facilities was raised in 1987. We knocked on every door to get finance for these storage facilities. We proposed building modern facilities which would provide the appropriate micro-climate inside, ensure the safety of these materials in case of accidents including fires, and so on. Well, there was no money. The provision of finance was delayed and virtually today, just this year, we intend to complete the design for such a storage facility.

It is the practice, and not just in our country, that such global political decisions are made, as a rule, without taking account of the technical aspects. So, in 1990 I approached the Americans about a possible joint construction of storage facilities. Moreover, the ice moved here and there appeared the so-called (Nanalogor) Fund, which amounts to 400 million dollars that is directed towards assisting the safe dismantling, transport to the place of dismantling, and the storage of active nuclear materials.

But unfortunately, this process dragged on. There were the agreements to be signed. There was criticism from the Supreme Soviet. You know what happened at our recent Congresses. The assistance, itself, has been not very effective today. Take the question of designs. They allocated, in accordance with an agreement between the Nuclear Ministry and the U.S. Defense Department, 15 million dollars. But this was for designing their section which they will give to us, concerning ensuring the safety of containers and checking for the presence of nuclear active materials, a diagnostic system costing 15 million dollars.

We do not receive a cent from this and it must be said that Russia has not received a cent from the (Nanalogor) Fund. Well, I am speaking for the Ministry of Nuclear Power Engineering. Everything is allocated to the U.S. research workers and industrialists. Well, they will do some part of the project. This will be no bad thing. Although for 15 million dollars Russia could complete the whole project. But we estimate that that part comprises somewhere about 10-15 percent of the whole project.

Apart from that, we have signed an agreement. When I say we I mean the Nuclear Ministry and the U.S. Defense Department on the supply of 45,000 containers to store nuclear active materials, plutonium and uranium which are removed. The containers, themselves, are also very complicated engineering constructions and should ensure the safety of these materials. Such a container costs from 1,000 to 1,500 dollars; we gave the Americans our designs. At first we exchanged designs. The United States and the specialists acknowledged that our designs were better. They satisfy not only the requirements of IAEA but also all the specific demands made by us and by the Americans in transporting such materials. They undertook to produce 200 containers for us. I would like to stress 200 even though in 1992, alone, we made 10,000 such containers for the use of our munitions, to store uranium and plutonium. This year we are also making 10,000.

Peslyak: How is the supervision carried out? Missiles are taken out of service, they are gradually, or not gradually,

taken away to the place where they will be destroyed. Who keeps an eye on this process?

Mikhaylov: The Ministry of Nuclear Power Engineering is responsible for the dismantling of nuclear munitions. That is, we do not remove the missiles, themselves, this is done by other civilian departments together with the Defense Ministry. We receive from the Defense Ministry the warhead to take to our works and this section comes to us complete.

The state nuclear inspectorate or the Russian nuclear inspectorate is responsible, mainly, so far, for peaceful activity in the sphere of the peaceful use of nuclear energy—nuclear power stations, transport installations. As far as concerns military equipment, no country has relevant structures apart from the Defense Ministry—I am referring to the nuclear powers—and ministries which carry out, or bodies which carry out and produce these nuclear munitions.

Well, as far as concerns some sort of international monitoring, permitting access by other specialists, particularly monitoring by public organizations, this is largely ruled out today as Russia has signed the Treaty on the Nonproliferation of Nuclear Weapons and nuclear technologies.

Peslyak: The Clinton Administration is still deciding the question of whether to begin or develop a new five-year program at the end of the present nuclear-testing moratorium.

Mikhaylov: On nuclear tests?

Peslyak: Yes, for 15 explosions. The number one question is whether there will be a similar or an asymmetrical response on our part, or are you now working on...[changes thought] are you perhaps doing something for peaceful purposes? It is no coincidence that in a few days' time an international conference on halting all nuclear testing is opening in Sweden. [Video shows model of the first hydrogen bomb. Caption says: "About 120 underground nuclear explosions were carried out in the USSR just for peaceful purposes"].

Mikhaylov: We are making preparations in case, if the Americans after 1 July begin nuclear testing, Russia is forced to begin conducting tests. I have long said, ever since I became a deputy minister, back in 1989, that the number of tests needed to be substantially reduced. We do not need the 15 or 16 tests a year on average that we and also the Americans were conducting. Three or four tests would suffice. Today it is a question of two or three nuclear explosions a year being necessary to maintain research development work on the safety of nuclear weapons, especially above all in peace time.

The issue is at present being tackled of seeing that there is no dispersal of any material such as plutonium-239 in any situation, in any unregulated situation. This is a more complex and difficult matter, and it may be resolved by the use of special means and special chemical explosive.

Therefore, in case the Americans carry out tests after 1 July—their plans for the current year are to carry out 15-16 tests—we are making plans. I do not know what the decision of the president, the Supreme Soviet and the government will be, but naturally our ministry, and I as the

minister responsible for this area of activity, are making preparations. [end recording]

[Unidentified announcer] As the Ministry of Nuclear Power Engineering stated in its response, we are awaiting a response from the Ministry of Defense.

Russian Press Questions Military Secrets-Sharing With U.S.

PM0106100193 Moscow KOMSOMOLSKAYA PRAVDA in Russian 27 May 93 p 1

[Igor Chernyak article: "Do Totosha and Kokosha Have Enough for Galoshes? What Has Russia Gained From Strengthening America's ABM Might?"]

[Text] The U.S. company Rockwell International recently produced a colorful poster showing the huge mouth of a bear whose bared fangs are tightly enclosed in a muzzle. The inscription on the poster reads: "The bear does not bite any more."

Rockwell International is one of the Pentagon's main arms suppliers. It is noteworthy that the poster appeared after the publication of two documents: The Russian Government's directive [rasporyazheniye] No. 2386-r dated 16 December 1992 and signed by former Vice Premier Georgiy Khizha, and the subsequent directive [direktiva] No. 11, dated 4 February 1993, from Russian First Deputy Defense Minister Andrey Kokoshin. The latter directive demanded that the commanders in chief and commanders of military districts and fleets end the encryption and jamming of telemetric information during the flight tests of ICBM's and submarine-launched ballistic missiles until November 1993.

There is a background to this event which went virtually unnoticed in Russia. According to information from competent sources, long before Ronald Reagan had put forward his "strategic defense initiative," work had begun at the Livermore Radiation Laboratory in California to create the "anti-missile weapon of the 21st century"—an X-ray laser with a nuclear pump. In the SDI system this weapon was assigned the role of one of the main means of destroying the enemy's missiles in the boost phase of flight before the separation of the warheads.

A research program for the creation of the X-ray laser with the nuclear pump was conducted in the United States in the utmost secrecy. It had already gone quite far when the Americans ran into a series of problems. In the opinion of Pentagon experts, by the second half of 1992 they were already more than 15 years behind the Russians. Despite the chaos in Russia, all attempts by U.S. intelligence to "gather" information here were unsuccessful until recently. There was big money at stake here so, at a meeting between Boris Yeltsin and George Bush last year, the latter asked the Russian side to allow a group of U.S. scientists to visit a classified research center legally, which would be in keeping with the spirit of the new-style Russian-U.S. relations that were developing. And Russia offered the United States a "regal" gift. When the Americans saw everything for themselves they realized that they lagged behind the Russians even further than they thought and that Russia's X-ray lasers were several times more effective than their U.S. equivalents. They returned home

where they told the President about this in a special report. Soon Russia sent a group of 12 "X-ray laser" experts to the Livermore laboratory. Until recently they were successfully resolving the problems which had confounded the Americans for many years. After all, who in the world knows better than the Russians themselves how to combat Russian missiles? The Russians also stopped jamming and encrypting telemetric information during the testing of their ICBM's.

It has been stated repeatedly at official level that the United States and Russia have long since ceased to be enemies and have become partners. The question: "Has the decision damaged the country's defense capability" can only be answered by the specialists. However, there is another factor here. The first session of the CIS Interstate Council on Questions of Safeguarding Inventions and Protecting Industrial Prototypes and Trade Marks was held in Moscow recently. It was noted there that Russia has absolutely no system of safeguarding secret inventions of state interest today, with the result that "know how" is flooding across the border. The country is losing billions of dollars here: Russia's revenue from the licenses is less than two percent of the corresponding revenue in Japan and the United States. What have we gained from strengthening America's antimissile might? KOMSOMOLSKAYA PRAVDA would be grateful to the Russian Defense Ministry for clarification on this matter.

PRAVDA Commentary Accuses U.S. of Being Untrustworthy Arms Control Partner

PM0906154793 Moscow PRAVDA in Russian 9 Jun 93 p 5

[Article by Lt. Gen. Grigoriy Kisunko, corresponding member of the Russian Academy of Sciences and "general designer of the first Russian ABM Systems": "Plus U.S. Nuclear Diktat"]

[Text] After the disintegration of the USSR the Russian Federation inherited not only its strategic nuclear missile forces, but also the burden of their confrontation with the U.S. nuclear missile forces, which were created with the original aim of attaining such technical superiority over the USSR as to make it possible "to destroy all strategic nuclear delivery vehicles in the USSR." Those were precisely the terms in which the U.S. nuclear missile "flexible response strategy," which was later embodied in the concept of a disarming strike against USSR strategic nuclear forces by 550 ICBM's with MK-12 triple warheads (in all 1,650 independently targetable warheads), was formulated in 1961. However, the aggressive ardor of the transatlantic strategists was cooled by the creation in the USSR of ICBM's stationed in highly hardened launch silos and also of a missile early warning system. On the basis of data from that system Soviet ICBM's would have been launched on a retaliatory counterstrike before the warheads from a preemptive strike had reached their assigned targets. Moreover, even if the aggressor managed to fool the missile early warning system and deliver a strike against our launch silos and the ICBM's in them, approximately 460 plus or minus 52 silos would not have been hit by the fireballs from nuclear contact surface bursts. This would have left a sufficiently substantial remainder for a

retributive retaliatory strike against the aggressor, leaving aside ballistic missiles on surviving submarines. The "flexible response strategy" was stymied.

In this connection the United States developed a new program of work to "...identify and exploit the USSR's vulnerabilities to U.S. weapons..." and achieve technical superiority in spheres relating to guided weapons such as "target detection devices and high-precision guidance systems and warheads..." That was how J. Perry, U.S. under secretary of defense, described the tasks of the new program in a report to the U.S. Congress 1 February 1979.

They Have Their Own Plans Across the Ocean

Carrying out work in this field, U.S. specialists achieved impressive results in developing highly effective extremely accurate warheads for ballistic and cruise missiles. For instance, in order to replace the nose sections of the "Minuteman-3" ICBM's (the triple-warhead MK-12), they developed the new MK-12A nose sections—which also have three warheads, but in terms of effectiveness in hitting the target with a nuclear fireball [each] new warhead is equivalent to six warheads from the old nose sections. At the same time they developed the 10-warhead "MX" ICBM's, and in terms of effectiveness against the target each "MX" warhead is equivalent to 39 (!) MK-12 warheads or 6.5 MK-12A warheads. The ICBM grouping of 550 "Minuteman-3" missiles was replaced by a grouping consisting of 500 "Minuteman-3" missiles with the new nose sections and 50 "MX" missiles—a total of 2,000 warheads. Yet around 1,580 warheads would have been enough to destroy all 1,398 Soviet ICBM's (given a probable delivery failure rate of 1 in 10). This was the picture in the confrontation between U.S. and USSR land-based ICBM's by the time of the USSR's collapse. The United States had ensured that a disarming strike against the USSR's ICBM's was possible, but only... if it proved possible to fool the Soviet missile early warning system. And that "if," guaranteeing a retributive retaliatory counterstrike, kept the transatlantic strategists from the temptation of pressing the nuclear button in order to smash the Soviet "evil empire."

At present it is extremely important for Russia and the United States not to miss the opportunity to form fundamentally new relations in the sphere of nuclear missile arms with a view to ending the pointless confrontation between them (between arms). It would be a real boon for mankind if both powers, right from the first steps in this sphere, put forward the initiative for multilateral talks among the nuclear states on concluding a treaty on the prohibition and destruction of nuclear weapons, as the USSR always advocated, as is well known. And as a start why should the U.S. and Russian presidents not issue a joint statement on not being the first to use nuclear weapons. Unfortunately, instead of this we have been presented with a treaty on the unlimited-duration authorization of strong-arm confrontation between the most sophisticated nuclear arms, festively updated and smartened up for the transition to the 21st century. I am referring to the START II treaty, whose official purpose is deemed to be to reduce the number of nuclear charges on U.S. and Russian offensive weapons to the level of 3,000-3,500 by the year 2003, in other words, allegedly to reduce them by a factor of three or so.

The supporters of this treaty claim that as a result of mutual concessions by the contracting parties it opens up a new era of security for Russia, the United States, and the whole world, although the world will scarcely become safer merely because the nuclear arms confronting each other contain, instead of 21,335 satanic "weapons," "only" 2 times 3,500, or 7,000 of them, which would be quite capable of incinerating all life on earth.

Not Concessions, but Smoke and Mirrors

The main U.S. "concession" to Russia is deemed to be its agreement to reduce "approximately threefold" the number of ballistic warheads on sea-launched missiles. In fact it is a question of writing off and eliminating obsolete missiles on obsolete missile submarines with a total of 4,992 warheads and replacing them with new "Trident 2" missiles with 1,728 more effective warheads of the latest design. This is being presented to the public as an act prompted by love of peace: A reduction in the number of weapons of 4,992:1,728=2.89, that is, approximately three times. But there are weapons and weapons: Each new warhead contains a nuclear charge 4.5 times more powerful than the old (written off) warhead, and the total yield of the charges on the 1,728 new warheads is 2.4 times greater than that of the 4,992 old warheads; finally, a single warhead from a "Trident 2" ICBM will ensure the same probability of hitting a small target with the fireball from a surface nuclear burst as would be attained by delivering to that same target 31 (no less!) warheads from the "Trident 1" missile, which is being withdrawn from service. Thus according to all parameters what is taking place is not a reduction but a sharp increase in the combat potential of the armada of U.S. missile submarines, which will be able to deliver its warheads to any point on Russia's territory from any point in the world ocean. And the calculated number of "Trident 2" missiles required to hit, for instance, 1,000 Russian ICBM launch silos with nuclear fireballs is approximately 1,130-1,150 out of the total complement of 1,728—allowing for a possible warhead delivery failure rate of 1 in 10.

Thus we are witnessing a reorientation—disguised as a reduction—by U.S. strategists toward ensuring a disarming strike against Russia's strategic forces via "Trident 2" missiles (rather than silo-based missiles, as during the Soviet period of nuclear confrontation). There you have the Pentagon's flexible response to the fact that the system of over-the-horizon missile early warning stations also collapsed with the disintegration of the USSR! Out of seven such stations, four were outside the territory of Russia (Riga, Sevastopol, Mingechar, and Balkhash) and three stations remained in Russia (Murmansk, Pechora, and Irkutsk). This creates ideal conditions for the aggressor to deliver with impunity a covert disarming strike by means of "Trident 2" missiles from submarines moved into sectors not monitored by the Murmansk, Pechora and Irkutsk stations. In these conditions Russia would be deprived of the ability to respond to the aggressor's strike with either a retributive retaliatory counterstrike or a retaliatory strike.

It is startling that all this seems to have been overlooked by our champions of the START II treaty, and what is more: Fooled by crude arithmetical manipulations, they have

eagerly swallowed the imaginary reduction in U.S. naval nuclear forces as the main U.S. concession to Russia.

Yet another "concession" by the U.S. side... in its own favor looks equally cunning. I am referring to the removal from service of the 50 10-warhead "MX" land-based ICBM's and also the reduction of the number of warheads on "Minuteman 3" missiles to one instead of three on each missile. Thus out of the 2,000 warheads previously intended for delivering a first massive strike against the USSR's ICBM's, only 500 will remain on alert duty—one on each "Minuteman 3." Since the functions of [delivering] a first strike are being transferred to missile submarines, there is no longer a need for multiple-warhead "Minuteman 3" and "MX" missiles, whose fire sectors are monitored by the missile early warning and ABM radar stations on Russia's territory, as a result of which a strike by the aggressor may meet with a retaliatory counterstrike from the former Soviet ICBM's.

It is noteworthy that all the aforementioned measures to clear and replace obsolete sea-launched arms that have reached the end of their lifetimes and to redistribute tasks between land-based and sea-based nuclear missile systems did not require any treaty coordination with Russia. It was sufficient to reach agreement on total maximum numbers of nuclear charges—say the same 3,000-3,500 charges—and after this to allow each contracting party to decide independently the question of distributing these quantities among land-, sea-, and air-based components. However, the U.S. side, abandoning (without losing anything) the multiple-warhead "MX" and "Minuteman 3" missiles, preferred to use this as formal grounds for insisting that Russia too agree to eliminate its multiple-warhead silo-based ICBM's—in other words, effectively to disarm our Strategic Rocket Forces. And we agreed to dismantle ourselves the foundation of our strategic deterrence under U.S. control!

Under the START II treaty, in place of multiple-warhead silo-based ICBM's we are allowed to have only single-warhead missiles. However, here too the terms discriminate against Russia. Our multiple-warhead heavy missiles are not allowed to be converted into single-warhead missiles by removing the "superfluous" warheads from them (as with the "Minuteman 3"). And even the conversion of the launch silos of these missiles to take new single-warhead missiles is permitted for only 90 silos. We simply have to blow up the remaining 500-plus silos. These really plagued and scared the Pentagon strategists! This is despite the fact that the U.S. multiple-warhead missiles actually provide "vacant slots" for additional warheads: two in the "Minuteman 3" and four in the "Trident 2." That is, if the number of warheads on each missile is increased from four to eight, the armada of 18 "Ohio" submarines will be able to carry in its "Trident belly" the entire quota of 3,456 warheads permitted by the START II treaty. At the same time a ruinous, absurd, and, to be blunt, humiliating procedure for excluding heavy missiles from our strategic arms is being foisted on Russia: It is simply proposed to destroy them all. But why not convert them into single-warhead missiles by the same method of removal, replacing the "superfluous" warheads (over and above the first) with dummies of the same weight? If, heaven forbid, matters reach the point of nuclear conflict, then the

dummy warheads will operate as ideal false targets to fool the nuclear aggressor's ABM systems.

Scenario of Continued Disintegration

However, after this START II smashing of our multiple-warhead ICBM's where can the Russian Strategic Rocket Forces go? Can they plunge into the ocean like the U.S. "Trident 2," as some of our strategists, fooled by scholastic missile arithmetic, are proposing? Alas, even leaving aside the economic aspect of the problem, such a solution would be absurd because of the differences between the geostrategic positions of Russia and the United States. For Russia this would result in a one-sided game of nuclear missile giveaway. The point is that the United States has a global system for detecting submarines, and so our submarines are detected and each is individually placed in the charge of U.S. antisubmarine strike forces capable of destroying our missile submarines along with their entire nuclear payload by nonnuclear means at the appointed "zero hour." It is well known that these "guardians" sometimes even "inadvertently" collide under water with our submarines even off our own shores.

The ideas of compensating for the loss of Russian multiple-warhead ICBM's (if this stupid act takes place) with mobile off-road missiles seem equally invalid. The authors of this by no means brilliant idea should pause to consider that we may find ourselves leading the entire world in terms of a new—nuclear—type of traffic accident. This is all we lacked after Chernobyl. And what about the difficulties in operating such missiles, what about maintaining them in constant prelaunch readiness, what about their vulnerability [slabaya zashchishchenost], what about the time it will take to get them ready for launching when they are stowed for travel, accidents, and environmental safety? And all this is for the sake of an illusory tactical gain as a result of mobility. For it is well known that back in the seventies the United States began to develop under project No 1010 global strategic reconnaissance and target designation systems for land and sea targets and systems for the timely observation of their functioning and of changes in their location delivering information almost in real time. It is also well known that data from this system were used to support combat operations in the Persian Gulf and early in the Falkland Islands conflict.

A Few Conclusions

In view of all the above there is no need to go into other details of the START II treaty because, even without this, it is clear that it has been foisted on us under well planned U.S. pressure to destroy the Russian deterrent potential and at the same time reinforce the U.S. offensive nuclear potential. After implementation of this treaty total U.S. nuclear diktat up to and including the complete nuclear disarmament of Russia at U.S. nuclear gunpoint will be established in the confrontation between the U.S. and Russian nuclear forces.

The only point it is possible to agree with is the ceiling of 3,000-3,500 on the number of nuclear charges confronting each other. But the distribution of the agreed number of charges among the land, sea, and air components of the strategic triad and especially the restoration of the Russian missile early warning system must be matters for sovereign decisions by Russia on the basis of its nuclear missile

doctrine, which must be elaborated in the light of global and regional geostrategic situations relating to the security of the Russian Federation.

Commentary Views Brzezinski's Advice to Ukraine

AU1406130293 Kiev DEMOKRATYCHNA UKRAYINA in Ukrainian 10 Jun 93 p 3

[Hanna Tuhay commentary: "Ratification or Isolation? American Political Scientist Zbigniew Brzezinski Does Not See Any Other Alternative for Ukraine"]

[Text] Yet another visit to Ukraine by Zbigniew Brzezinski, director of the Washington Institute of Strategic Studies, was qualified as unofficial. However, even if it had been private, this person enjoys such standing that his trip could not pass unnoticed. Add to this the following "coincidence": Brzezinski had meetings in Kiev with people ranging from the president to journalists (in the National Press Club) several days prior to the discussion of the question of START-1 ratification at the Supreme Council. The American guest emphasized that his one and one-hour long conversation with the president was, in fact, a continuation of the dialogue that was started during Leonid Kravchuk's visit to the United States.

Today, Ukraine is emerging from an informational limbo, believes Brzezinski. Even when he was looking through newspapers on board the plane, he came across several articles in such influential publications as THE INTERNATIONAL HERALD TRIBUNE and THE WALL STREET JOURNAL that dealt with the events in Ukraine. What a miracle! One of the articles was not even a traditional philippic on the Ukrainian inflexibility regarding START. This provided grounds for optimistic predictions. The West is beginning to notice Ukraine, and even investors, especially large corporations, see prospects for business there. The only hampering factor is the mafia and, certainly, the absence of guarantees for foreign investors, something that restrains an average businessman.

However, despite such a turn of affairs, Washington will not shift the focus of its attention from Moscow to Kiev, believes the author of the book "The Birth and Death of Communism in the 20th Century" [title as translated]. There are several reasons for this. One of them is betting on the reformer Yeltsin. We trusted Gorbachev too long, stressed Brzezinski. President Yeltsin is devoted to reforms and he is proving this by actual deeds, and, therefore, the United States gave assistance precisely to Russia. On the other hand, there is fear of a new empire if reforms suddenly choke up. At the same time, Ukraine is far behind.

Where is then our place in the external priorities of Clinton's administration?

There is a widespread opinion in the United States to the effect that Ukraine does not fulfill its obligations regarding nuclear disarmament, and this gives rise to skepticism. Consequently, not only the United States must show initiative, but this process must be mutual, believes Brzezinski.

I understand Ukraine's anxiety regarding guarantees following disarmament and the economic outlays on the elimination of nuclear missiles [says Zbigniew Brzezinski],

but if I were President Kravchuk, I would do everything in order to fulfill obligations before the international community. Nuclear weapons will not provide security guarantees, but may lead the country to an isolation. This is a very bad prospect.

However strange this may appear, the American political scientist does not share anti-Russian sentiments that prevail among some of our fellow citizens. Ideally, the relations between Ukraine and Russia must resemble those between Canada and the United States: The borders are only political, and in reality there is peaceful and good neighborly coexistence of two great powers. However, this process is quite complicated and time-consuming, and there is a danger that there will be attempts to annex Ukraine, but there is no need to overdramatize the situation. If there is mutual willingness, it is not difficult to achieve this [an improvement in the relations with Russia], especially when the economy begins to improve. Here, stressed Brzezinski several times, there are no alternatives other than market relations for either Ukraine or for the whole world. However, it may take much time before hopes for Ukraine's rapid integration into the European market are implemented. The same applies to other republics of the former USSR. In this connection, President Kravchuk's initiative with which he came forward during the visit to Hungary is very positive. Therefore, the Central and Eastern European economic zone? Brzezinski considers Walesa's proposal to create a so-called NATO-2 not viable in every respect. The North Atlantic Treaty Organization itself is a strong military and political organization with established structures and a stable material foundation of its own. An imitation of NATO in Eastern Europe will not possess such power or authority. Besides, it may be perceived as a counterbalance to Russia and will give rise to a new wave of confrontation. In this connection, there also exists a different possibility, believes Brzezinski: In the course of time, both Russia and Ukraine will gradually become incorporated into certain NATO structures. Incidentally, Poland may not count upon this until 1996.

Zbigniew Brzezinski views the problem of Western aid to former Soviet Union republics in a quite pragmatic way. He does not share illusions regarding programs of a "Marshall Plan" type. That was a different system based upon private ownership. However, in your country, state ownership prevails.

His attitude toward proposals that the so-called Polish variant be followed is somewhat different from those of some of our economists and reformers. It is not suitable for Ukraine, either, because over the time of building socialism, our neighbors' philosophy of entrepreneurship could not be totally destroyed. Besides, land there always belonged to private persons and there also existed other spheres of activity of private business.

In this context, it would do no harm if we heed the opinion of the prominent political scientist who predicted the bankruptcy of Communism as far back as in 1989. Nobody, no overseas experience, and no overseas uncle will revive our land or build an independent Ukraine for us. It is a matter for us to do.

Chief of Strategic Missiles Force Says Business as Usual

*PM1506122193 Moscow KRASNAYA ZVEZDA
in Russian 11 Jun 93 p 1*

[Lt. Col. Aleksandr Dolinin report: Col. Gen. Igor Sergeyev, commander in chief of Strategic Missile Forces: "Life Goes On. Combat Training Is in Progress"]

[Text] An operational assembly of combined unit and large strategic formation top brass and central apparatus officers and generals has taken place over two days in the Missile Forces. The results of the winter training period were summarized, and immediate prospects were noted. KRA-SNAYA ZVEZDA's permanent correspondent for the Strategic Missile Forces asked Colonel General Igor Sergeyev to comment on these results.

The Strategic Missile Forces commander in chief said: Combat training in the past six months was characterized by a number of difficulties. Primarily as regards its actual provision. Both in terms of people to be instructed, as well as people to organize and carry it out. There was a shortage of both. This is the main problem.

Second, there were difficulties in providing everything necessary for the training process. Fuels and lubricants, for instance. The shortages restrict mobile missile complexes most of all.

Nevertheless, verification of the combat readiness of units and subunits (one-third of divisions were checked by the Armed Forces General Staff and the Strategic Missile Forces High Command) has shown that, on the whole, officer personnel have coped with the tasks. By comparison with previous, more favorable years, the level of combat training has not declined. All combined units were evaluated positively. The majority were viewed as good.

Where were the best results? In units where young commanders have acceded to leadership. Ardent individuals who do not shun the dirty work. Professionals.

As a rule it is precisely here that the aspiration for high results can be observed. This is also why they coped well with the difficulties. Even in places where the most complex conditions exist: where construction is going on or regiments are being taken off alert duty...

The results of combat training in these units are actually higher. A paradox? In some ways, yes. But a pleasant paradox.

What prevents us from moving forward more confidently? Poor organization in introducing general military regulations.

...Ahead lies the verification of missile combined units' propensity for upgrading to higher levels of combat readiness. We are preparing for this.

The main point is to maintain the grouping in a combat-ready state and to preserve the balance of strategic nuclear forces.

So the taste for combat training in the Missile Forces has not dwindled at all. It sets the tone in the life and activity of missile specialists.

Votkinsk Plant To Produce Washing Machines
*93P50214 Moscow NEW TIMES INTERNATIONAL
in English No 22, May 93 p 21*

[Unattributed item under the rubric "Outlook": "Defence Plant To Produce Washing Machines"]

[Text] The Votkinsk plant in the Urals, a secret defence enterprise in the past, was visited by the presidents of GAM Industriale and Siltal, Italian firms specializing in the manufacture of household washing machines. The talks with the Italian businessmen ended in the signing of a contract for cooperation. Italian specialists will train Russian personnel to use progressive technologies; the firms will also supply and install equipment. As a result of this cooperation, the Votkinsk plant will begin the mass production of automatic washing machines measuring up to world standards. In the opinion of experts, demand for these machines in Russia is practically unlimited.

STRATEGIC ARMS REDUCTIONS

Russian Commentary on U.S. Defense Secretary's Visit to Ukraine

*LD080621193 Moscow Radio Moscow World Service
in English 1710 GMT 8 Jun 93*

[Commentary by Ludmila (Velichenko)—from the "News & Views" program]

[Text] United States Defense Secretary Les Aspin has completed his two day visit to Ukraine—and now a commentary by Ludmila (Velichenko):

U.S. Defense Secretary Aspin sees his visit to Ukraine as fruitful and encouraging. He appreciates his meetings with Ukrainian President Kravchuk, the Ukrainian lawmakers, his Ukrainian counterpart Konstantin Morozov, and officials of the Ukrainian Foreign Ministry. Secretary Aspin has told newsmen he was aiming to launch a closer relationship with the Ukrainian Defense Ministry and he feels he achieved this objective. A joint working group will consider the implementation of the latest bilateral agreements.

In Kiev Secretary Aspin also focused on nuclear disarmament and security. He outlined the U.S. proposal for joint control of the nuclear warheads, which are to be removed from Ukraine, in case Ukraine ratifies the first treaty on the reduction of strategic nuclear weapons. He stressed the proposal was yet to be discussed in detail with Russia.

Russia was keeping a close eye on Secretary Aspin's visit to Ukraine. As well as many other nations, Russia is concerned about the Ukrainian reluctance to fulfill its own pledges. 176 long-range nuclear missiles and winged rockets with nuclear warheads are still stationed on Ukrainian territory and Ukraine is in no hurry to get rid of them.

Addressing a close session of the National Parliament, Prime Minister Leonid Kuchma recently said Ukraine ought to declare itself a nuclear power and keep its finger on the formerly Soviet nuclear button. Even though other Ukrainian leaders hurried up to say Kuchma was speaking in his capacity as a member of parliament and not as prime

minister, what Kuchma said reflected the view of one third of the country's lawmakers, and one third of the overall parliamentary vote can block the ratification of START I and the Nuclear Nonproliferation Treaty.

Secretary Aspin is still hopeful Russia and Ukraine can negotiate a solution to the nuclear problem. Soon Russian Defense Minister Pavel Grachev will visit Washington and a little bit later his Ukrainian counterpart Konstantin Morozov will follow in his footsteps.

Belous Endorses START II Ratification

93WC0077A Moscow FEDERATSIYA in Russian No 57, 25 May 93 [Signed to press 24 May 93] p 7

[Article by Maj. Gen. Vladimir Belous, candidate of technical sciences, director of the Military-Political Studies Section of the Committee of Scientists for Global Security, under the rubric "Expert Opinion": "The START II Treaty: To Be or Not To Be?"]

[Text] The Russian-American Treaty on Further Reductions and Limitations in Strategic Offensive Arms (START II) has reached the finish line—the Supreme Soviet of Russia has begun hearings in anticipation of the ratification process. Frequently expressed during the course of debates are extreme, literally antithetical views and assessments. This is explained primarily through the plans—unprecedented in scope—for reducing strategic offensive arms, and through the inertia applicable to our thinking formed over the course of four decades of the Cold War.

According to the treaty, the process of effecting radical reductions in strategic offensive arms will take 10 years. But even afterwards, both sides will still be able to destroy one another—and the entire world civilization at the same time. The extremely urgent question therefore arises as to what function nuclear weapons will fulfill in the future. And what should Russia's nuclear strategy be in this regard? What real content must be inserted into the treaty? Success with respect to the treaty's passage through the reefs of ratification will depend to a great extent on the answers to these questions.

Most political and military experts have agreed in recent years that nuclear weapons are not the weapons of war, since their use cannot achieve any rational political aims. As long as they exist, whether we like it or not, the only function nuclear weapons serve is to deter a potential aggressor from attacking using these weapons.

At the same time, in order for deterrence to be convincing and realistic, Russia's nuclear forces must be capable of inflicting "unacceptable" damage upon aggressors under conditions of warfare which are most adverse for them.

Operational-strategic calculations show that even after the planned reductions are effected, the remaining 3,000-3,500 nuclear warheads on Russian strategic offensive arms ensure the accomplishment of assigned missions with respect to inflicting a responsive strike against any aggressor. True, this is a fair statement only if a number of conditions are met, first of all—rejection of building a large-scale antimissile defense of the American SDI

variety, the main purpose of which is to shield its territory from a responsive strike by enemy missiles.

The second condition is banning the execution of strikes against nuclear targets using conventional weapons systems in the event a military conflict breaks out. As we know, agreement in principle was reached on this during the negotiations between delegations of the two countries.

The treaty is the result of certain compromises—inevitable in drawing up agreements on such a large scale. The American side departed from previous positions it held on two fundamental problems which could not be resolved in concluding the START I Treaty.

This concerns primarily the consent by the United States to reduce the number of nuclear warheads on its missile-carrying submarines to one-third the present level. As we know, the United States has traditionally placed basic emphasis on development of the sea component of its triad, which today accounts for about 65 percent of all nuclear warheads.

The American side also agreed to depart from its previous arbitrary calculation of numbers of nuclear weapons attributed to heavy bombers. According to START I, one strategic bomber counted for 10 nuclear weapons, while in actuality being capable of carrying 20 long-range cruise missiles and 10-12 free-fall nuclear aerial bombs. Presently the calculation is effected according to the real number of nuclear weapons the aircraft is capable of carrying.

The Russian side made a major concession in agreeing to the elimination of all its multiple-warhead intercontinental ballistic missiles (ICBM's), which comprise the basis of Russia's nuclear might.

A subject of violent criticism was Russia's obligation to eliminate 308 SS-18 heavy missiles with 10 warheads on each. This is understandable since the missile incorporates the latest achievements of the country's nuclear missile technology. From the moment of its creation, this missile was a constant "headache" for American strategists, who named it "Satan" through no coincidence.

True, the American side also embarked upon full elimination of its 50 MX ICBM's—the Peacekeeper—with 10 warheads, and on leaving one warhead on each of its 500 Minuteman-3 ICBM's.

With respect to Russian strategic offensive arms following the planned reductions, the percentage of nuclear weapons on submarine-launched ballistic missiles (SLBM's) will increase possibly to 50 percent. This is determined primarily by the high "survivability" of the submarines stationed at sea, a consequence of the relatively low reliability involved in determining their location. In addition, when a strike is inflicted on them, destruction of various facilities and annihilation of populace do not simultaneously take place—as if the war is transferred to outside a country's boundaries.

Presumably, the inventory of the Russian Navy will consist of 20-24 submarines, holding up to 1,750 nuclear combat systems.

It is expected that the United States will retain 18-20 submarines in its inventory, carrying up to 1,750 nuclear weapons.

The fate of the aviation component of the Russian triad—traditionally relegated a secondary role in any nuclear war scenario—is quite problematic. The situation is complicated by the fact that a significant portion of heavy bombers capable of carrying cruise missiles are situated in Ukraine, where attempts have been made to “privatize” them. Some heavy bombers remain in Kazakhstan. This has led to a situation in which just 25 bombers capable of carrying cruise missiles remain in Russia, as well as 61 aircraft with nuclear weapons other than cruise missiles. The air component of our strategic offensive forces will apparently ensure delivery to targets of 400-500 nuclear weapons for one sortie (12-14 percent of the total number).

Within the American strategic offensive forces, the air component share will be significantly greater. According to certain data, the United States will have 170-220 heavy bombers, capable of carrying up to 1,200 nuclear weapons (35 percent of the total).

Within the composition of the Russian strategic offensive arms, a significant role in supporting strategic stability will be played by the land-based ICBM's. Our Strategic Rocket Forces differ most favorably from the other components of our strategic offensive arms by virtue of their state of technical equipment, state of military command, control, and communications systems, operational readiness, system of security and defense of occupied positions, and system to preclude unauthorized actions involving nuclear weapons. It should also be taken into account that the operation of ICBM's is much cheaper than that of bombers or submarines. According to cost-effectiveness criteria, our Strategic Rocket Forces have no equal and experts calculate that an allocation of 8-10 percent of the military budget to maintain and modernize these forces will ensure reliable deterrence of a potential aggressor.

Let us examine one possible variant of the composition of Strategic Rocket Forces. In accordance with the treaty, Russia has the right to retain 105 SS-19 ICBM's leaving them one warhead each (instead of six), and also to position 90 single-warhead missiles in reconfigured silos built for the SS-18 ICBM.

In addition, it would be advisable to reconfigure 400 silos on Russian territory, presently housing the antiquated SS-11, SS-13, and SS-17 missiles, to accommodate single-warhead missiles of the SS-25 variety. In this manner, preserving the missile silos which constitute unique engineering structures, the number of stationary ICBM's will come to about 600.

It is considered advisable to retain, but not increase, the presently existing set of mobile SS-25 ICBM's (Topol)—about 300 in number. This is determined primarily by the fact that the existing method of garrison basing of mobile ICBM's does not guarantee the required “survivability,” which depends to a great degree on reliability of the warning system. In contrast to stationary ICBM's for which tactical warning is sufficient (warning of the launch of an enemy missile—also not easy to guarantee), mobile ICBM's require that strategic warning be provided, at least one hour prior to attack.

Deficiencies of the mobile ICBM's also include heightened risk of accident when moving them through patrolled

areas, poor ability to defend against acts of terrorism and sabotage, and limited motorized resources.

It is also necessary to take into account the fact that a far greater number of personnel is required to provide servicing and maintenance for the mobile ICBM's, and personnel maintenance costs per mobile missile are significantly greater than is the case with stationary missiles. It therefore appears advisable to set the proportion of stationary to mobile missiles at 65/35 percent.

Most political analysts today agree that the threat of global nuclear conflict has become minimal. But at the same time we see a significant increase in the threat of use of nuclear weapons manufactured secretly by third countries. Under such conditions, an all-encompassing shoring up of the regime of nonproliferation of nuclear weapons moves into the forefront of concern of the world community and becomes vitally important to it.

Another aspect of START II is related to the stage of its implementation at which we find ourselves. Yes, the treaty is not flawless. Yes, there are certain deficiencies which could be eliminated from it. This could be done during the period of its development and coordination, and if it were not signed in January 1993 no one would accuse Russia of not being peace-loving. After all, the START I negotiations continued over the course of 10 years. However, rejection of ratification of the treaty signed by the two presidents would create a fundamentally new situation, damage strategic stability, leave a black mark on the entire structure of Russian-American relations, and reset into motion the mechanism of the arms race. Can we embark upon this path?

The author realizes full well that his arguments do not constitute the ultimate truth. But he has no doubt as to the main point: The START II Treaty conforms to the political, military, and economic realities of Russia, and from this point of view it must be ratified. Taking into account the confrontation between our legislative and executive powers, however, when we see in effect the unwritten rule—“What the president needs is patently what the Supreme Soviet does not, and vice versa”—conditions hardly exist for an objective evaluation of this extremely important document. START II constitutes yet another topic of political fighting and mutual accusations. It would be advisable, therefore, to postpone the process of its ratification.

Varying Views of Russian Participation in START Process

Commentary Says START-2 Compromising Security
MK0106133093 Moscow FEDERATSIYA in Russian No 60, 1 Jun 93 (Signed to Press 31 May) p 7

[Aleksandr Mitrofanov report under the “Follow-Up” rubric: “A Farewell to Arms of Retaliation?”]

[Text] The START-2 treaty hastily signed at the very beginning of last January by Presidents George Bush and Boris Yeltsin has been under discussion in Russia for five months (and in the United States was approved virtually without any doubt expressed).

The main themes that cause differences among specialists have already become a commonplace: Whether Russia retains enough nuclear weapons after the destruction of the strategic missiles subject to reductions? Whether the nuclear weapons delivery vehicles (land-based, submarine-based, and missile-armed aircraft carrier-based) of the two sides are equivalent? Whether the two sides are in equal position to build up the strategic offensive weapons on different types of delivery vehicles in the event that one of them should withdraw from the treaty? What is the economic advisability of retaining Russia's current nuclear potential (or, simply speaking, what is cheaper—to keep the missiles or to dismantle them)? Whether the United States provides sufficient technical and financial assistance if the document is ratified and the weapons subject to reductions begin to be destroyed in practice? It is around these problems that the argument between Major General V. Belous and his opponent, O. Cherkovets, is unfolding (see FEDERATSIYA No 57 of 1993).

What is the most important thing here? Obviously, not quantitative, but qualitative characteristics of the treaty, what O. Cherkovets is actually writing about in his article. Different structures of the two countries' delivery vehicles make it qualitatively impossible to cut our land-based SS-18 missiles even if quantitative equality is ensured with regard to the remaining weapons (3,000 to 3,500), because the U.S. arsenal is dominated by missiles based on submarines, missile-armed ships, and aircraft. The permission for Russia to increase the number of submarine-based missiles by 50 percent does not change much, because they have yet to be built against the backdrop of the collapse of the military-industrial sector, to say nothing of the need to obtain geopolitical conditions equal to those enjoyed by the United States for the use of missile-armed submarines in seas and oceans, which is effectively impossible.

The permission we were given to keep the SS-18's provided they are converted into single-warhead missiles (that is to say, each missile will have a single nuclear warhead instead of six to ten now) makes for us no difference, either. What we see here is a classical example of quantitative changes evolving into qualitative ones. The thing is that intercepting one single-warhead missile (or a string of them) is a relatively easy job for an American air-defense system. However, intercepting six to ten independently targeted warheads, even if they are launched by one SS-18 missile, is virtually impossible, because the difficulties of the requisite computer calculations will grow geometrically. The more so if tens or hundreds of SS-18's are launched at one time. This is why our SS-18's have turned into a constant "headache" for American strategists, which was metaphorically described by V. Belous.

Both at present and in the foreseeable future, the United States has neither technical nor mathematical means to neutralize the Russian SS-18's. And even the much-vaunted SDI program is incapable of saving them from the "Satan"—SS-18's, which, for us, are just the opposite, "the guardian angels." The technical difficulties related to the creation of SDI are well known (because of the need to launch into the outer space a large number of military missile satellites, satellites equipped with laser weapons, "nuclear-pumped" satellites and so forth). What is less known is that these systems that intercept enemy missiles

rely on such mathematical software for the precision targeting on numerous movable objects that America lacks now and is unlikely ever to get. The thing is that the fastest supercomputers can work efficiently only with the requisite software, and software is a special form of mathematical equilibria that describe in detail well-known physical processes. So, present-day mathematics cannot give a precise description of the movement of four or more bodies seen via radars, if they move with different accelerations and at the same time rotate in relation to each other. Since an SS-18 may launch as many as 10 independently targeted warheads at one time, with each of them having a complex, pre-programmed trajectory, determining this trajectory via U.S. air-defense systems is simply impossible. Therefore, not all the warheads approaching their targets can be intercepted and destroyed. This is why SS-18's can justifiably be considered a retaliatory weapon that ensures the ineluctability of a counterstrike and, therefore, is capable of deterring any aggressor from the temptation to invade Russia.

There has also been few reports highlighting the fact that SDI was initially designed for fighting mobile missiles on the ground and at sea, especially for striking submarines with nuclear weapons on board since they can be seen from outer space as if it were the palm of your hand (thanks to water's optical effect: the deeper the submarine, the larger target it presents for a strike from space). As soon as technical matters related to laser-targeting space missiles on underwater targets (and these are readily soluble problems), the submarines will cease to be the most invulnerable type of missile carriers. The economic and technical superiority of the United States and all NATO will enable them to implement SDI for the purpose of destroying our submarines faster than Russia is able to double its undersea fleet in conditions of the social-economic and political crisis. So much for "maintaining parity!"

As many authors before him, V. Belous uses the term "unprecedented" to describe the scale of missile and nuclear warhead cuts. What is it that is so "unprecedented" in START-2? What prevented the former leadership of the USSR, or the Russian Federation, to conclude "unprecedented" treaties before? Is "unprecedented" so good per se? Why is it that a significant positive sense is being attached to this term?

There are "unprecedented" and "unprecedented." The burning of the temple of Artemis in Ethesus in the fourth century A.D. by Herostratos was also unprecedented for that time. Over 2,000 years afterward, disguised behind high-flown rhetoric about "unprecedented arms reductions," former USSR President M. Gorbachev and his inner circle have, keeping this secret from the people and the army, liquidated the unique Oka missile system with a range of up to 400 km without receiving any compensation from the United States. Under the rustle of fine words about "the new world order" and "universal values of mankind" they have given the United States free of charge 70,000 sq km of the richest sea shelf in the Far East—this is also an unprecedented fact.

This is why questions related to this "unprecedented" nature are extremely important and answers to them are not mere rhetoric, but amount to the guarantee of our national security. Unfortunately, as they admire the fact of

"strategic disarmament," its advocates avoid an elementary calculation of what it can lead to in the event of yet another sudden heightening of tensions in the world (and it is an axiom that anything can happen in international affairs).

We believe that strategic disarmament in conditions of unprecedented national humiliation (here, as a matter of fact, this term is very apt) has never lead to improving the security of any state. Nor will Russia's security be strengthened by the current talks with the United States as long as the country is in ruins, as long as the people are growing more and more impoverished and the country's economy continues to break up. In a situation like this, it is especially important to recall that they pay heed to Russia as a great power, or pretend to do so, as long as it has a weapon of retaliation—elusive strategic missiles, our multi-warhead "guardian angels." As soon as they turn into single-warhead ones, Russia will be addressed in the language of ultimatums as was the case with Iraq or with the former Yugoslavia. But it will be too late then to look for those responsible. This is why it is better to stop now and not to play with fire, particularly if it is nuclear.

Military Scientist Urges START Ratification Be Put Off

*PM0906115193 Moscow ROSSIYSKAYA GAZETA
in Russian 9 Jun 93 p 7*

[Article by Reserve Lt. Col. Stanislav Kozlov, doctor of physical and mathematical sciences, president of the Russian Association of Independent Military Scientists: "If You Weigh Things Up"]

[Text] The Russian Federation Supreme Soviet has started discussing the question of the ratification of the START II treaty. This procedure requires an extremely considered approach based primarily on expert assessments and research and development by specialists in various fields. It would be sad if the discussion was to be reduced to just another political confrontation between supporters and opponents of the president's policy, between "democrats" and "conservatives."

The difficulty of the situation associated with the ratification of the treaty boils down to two factors. First, the Supreme Soviet, unlike state structures, has virtually no qualified organizations or collectives of academics and practical specialists capable of formulating reliable and objective recommendations on this problem. The Defense and Foreign Ministries' participation in the preparation of the treaty rules out the possibility of involving these departments' institutes since their answer would be unambiguous—the SALT II treaty must be ratified. Second, the overwhelming majority of Supreme Soviet members are unable for perfectly understandable reasons (past experience, specialization) to work out all the treaty's largely technical subtleties. The corollary of this is a growing probability of them "drifting" toward attitudes of personal sympathy or antipathy toward a given set of politicians.

In my view, the way out is to involve academics and specialists from the independent scientific and science-and-production centers, associations, and other "think

tanks" which have emerged in Russia in recent years. This is not a new idea in principle and has long been utilized abroad.

Assessments "for" and "against" the ratification of START II obtained by one such independent organization—the Russian Association of Independent Military Scientists—are presented in this article.

The table shows what we regard as the five most important factors which it is expedient to take into account when deciding the question of ratifying the treaty. It also includes the results of expert assessments (* sign). (See Table 1).

No.	Factors	"for"	"against"	"unclear"
1.	Panhuman	*		
2.	Military-Strategic Security of Russian Federation:			
	--treaty's correspondence to Russian Federation military doctrine	*		
	--parity with the United States		*	
	--mutual relations with other nuclear powers: Britain and France	*		
	China		*	
	Belarus and Kazakhstan		*	
	Ukraine		*	
	--mutual relations with states which have not signed the Treaty on the Nonproliferation of Nuclear Weapons but are capable of developing them			*
3.	Ecological Consequences of Nuclear Conflict:			
	--regional and local	*		
	--"nuclear winter"		*	
	--destruction of Earth's ozone layer		*	
	--consequences of explosions in near-Earth space			*
4.	Economic:			
	--recycling or destruction of rockets and nuclear weapons	*		
	--future development of Russian Federation Armed Forces, including strategic forces		*	
5.	Social	*		

Table 1: Results of Expert Assessments

We offer brief explanations for your attention.

The attractiveness of the first factor is obvious. Mankind must live without nuclear weapons, and therefore any movement in this direction should be welcomed. But the realities of the present-day world are such that, despite an appreciable reduction in the level of military confrontation, a nuclear-free world remains an extremely remote and as yet unattainable objective. That is, the "panhuman" factor cannot be the determining factor in terms of the ratification of START II.

Russia's military-strategic security, however, is one of the most important assessments. It requires the examination of many questions, primarily the treaty's correspondence to our country's military doctrine. Unfortunately this doctrine has not yet been elaborated. The conclusion from

this is that ratification of START II is undesirable. The truth that the military doctrine is paramount and everything else, including the treaty under discussion, is secondary, needs no proof. The doctrine can be made to fit the treaty, of course, but that approach would mean an increase in the probability that objective political, military, and economic interests of the Russian Federation would be left out of account.

Other questions determining military-strategic security are linked with military doctrine to a greater or lesser extent, although they also have a certain significance in themselves. Many of them relate to controversial questions. For example, the problem of military parity with the United States. If the military doctrine is not going to make provision for such parity, naturally the treaty must be ratified. Possibly a more optimal option in this instance would be to reduce our country's nuclear potential to the level of Britain, France, or China. Otherwise it becomes more difficult to assess parity because of the work on antimissile defense being done in the United States and the total uncertainty about Russia's ability to halt this work by political methods. You do not need to be an expert to realize that any reduction in nuclear weapon delivery vehicles and a transition to single-warhead missiles makes antimissile defense tasks easier and reduces the cost of developing such defenses.

We have touched on only one important aspect of military parity with the United States. Taking into account the fact that the problem has a whole number of other equally important aspects (comparative analysis of the "nuclear triads," assessment of the possibility of carrying out a retaliatory counterstrike or retaliatory strike, assessment of the possibility of inflicting unacceptable damage on a probable enemy in a retaliatory strike, and so forth), it is obvious that this factor alone can give rise to many contradictory judgments preventing the Supreme Soviet from drawing unequivocal conclusions about ratification of the treaty.

Let us draw particular attention to the "Chinese factor." Its continuation of underground test, its proximity to Russia, and the absence of reliable data on this neighboring country's nuclear missile potential argue more against ratification of the treaty. We should also include among the unclear issues our mutual relations with states capable of developing nuclear weapons: because of proximity to Russia's borders, the instability of the political situation and the odiousness of the regimes in a number of these states, and the possibility of nuclear blackmail and terrorist acts. Russia has no precise and clear military-political views about a possible challenge from this group of countries.

Extremely frequently various experts employ the concept of "inflicting unacceptable damage on a probable enemy." This concept has serious defects because of its vagueness resulting from the nonexistence of scientifically substantiated criteria for such damage. There is always a need for additional remarks explaining what in the final analysis is meant by such damage: the loss of one or several major cities, the destruction of one or several hydroelectric power station dams, the destruction of nuclear power stations (how many?), or maybe putting air force or naval bases out

of operation? This is why there is a more comprehensible point in examining the question from the ecological viewpoint.

The crux of this lies in the following fundamental consideration: the result of reducing nuclear missile potential must be to rule out devastating ecological consequences in the event of nuclear war. Only in such a situation will politicians not be tempted to reach for the nuclear "button" in an international crisis caused by a conflict of states' political, economic, or other interests. But the problem of reliably assessing the ecological consequences of a nuclear conflict, particularly consequences of a global nature, has not been solved. Earlier studies were marred by excessive ideological and political influences. Moreover, the physical models on which assessments were based do not withstand serious criticism. In other words, the possibility of a nuclear conflict being unleashed at this time is low, but it does exist.

From the economic viewpoint the greatest significance attaches to assessing financial expenditure on the future development of our armed forces, including our strategic forces, if START II is ratified. This question is also linked with Russia's military doctrine.

The economic benefit from reducing the country's nuclear missile forces is indisputable, even given the need for certain expenditure on the component-recycling and destruction of arms subject to reduction. According to some estimates, this benefit will total something like 100 billion rubles. But it could be reduced to nothing if the development of the armed forces requires the development [sozdaniye] of a new generation of strategic systems and the intensive development [razvitiye] of sea-launched nuclear missile systems, where the United States has supremacy.

The social factor covers an entire set of questions linked with the reduction of Russian army manpower and the conversion of the military-industrial complex. They have been repeatedly discussed in the press. But ratification of the treaty must not be dependent on getting these questions "sorted out."

Let us sum up the results of this brief analysis. It is not difficult to see that it is not possible to give the Supreme Soviet unequivocal recommendations. There are objective and weighty arguments "for" and "against" ratification.

Many problems require further serious discussion. Therefore the most sensible and correct thing would be for the Supreme Soviet to defer examining the question of ratification of the treaty at least until Russia's military doctrine has been adopted, attitudes to American work on antimissile defense have been clearly defined, and a comprehensive program for the development of the armed forces has been elaborated. To reject the treaty as a whole or make fundamental changes to the text is inadvisable at the present stage.

Environmental Aspects of START II Treaty

93WN0441A Moscow ZELENYY MIR in Russian No 11,
May 93 pp 1, 7, 10

[Article by Captain 1st Rank (retired) L. Malyshev,
candidate of military sciences: "START II and Russia's
Environmental Safety"]

[Text] The treaty is signed. But is this reason to rejoice?

Following a perusal of the wording of the START I and
START II treaties, doubts on two main problems arise.

First, will Russia's military security under the conditions of
a radical reduction in the weapons systems, military com-
mand and control, and military industry per various disar-
mament treaties being fulfilled simultaneously be assured?

Second, has the START II Treaty undergone comprehen-
sive expert appraisal in respect to problems of the financing
of the disarmament process, ASSURANCE OF ENVIR-
ONMENTAL SAFETY, and social protection of the
servicemen and employees of defense industry and their
families who will be stood down?

Let us briefly explain the initial situation for the calcula-
tions and arguments.

The strategic nuclear forces of the USSR as of July 1991
totaled 1,398 intercontinental ballistic missiles and 6,612
nuclear warheads of the strategic rocket forces, 62 naval
undersea guided-missile cruisers armed with 940 missiles
(SLBM's), and 2,804 warehoused nuclear warheads, given
one further basic ammunition load, and also 162,000 air
force heavy bombers armed with 852 missiles and 252-504
nuclear bombs, given a further two warehoused basic
ammunition loads. The USSR's strategic forces totaled
3,694 deployed missiles and 10,772 nuclear warheads. The
day-to-day functioning and maintenance of the combat
readiness of the strategic forces was secured by an infra-
structure of missile, sea, and air facilities, command posts
with early warning and communications centers, arsenals,
training centers, military schools, academies, and test
ranges and an intricate system of comprehensive support
facilities.

The elaboration of the plans and the industrial manufac-
ture of the missiles, launchers, missile-firing submarines,
bombers, and tactical control systems, the construction of
military bases, and the recovery and treatment of nuclear
ore for the nuclear warheads and nuclear power installa-
tions of the submarines were performed by a most intricate
complex of institutes, planning organizations, mines,
plants, and large-scale industrial reactors with their own
infrastructures of plants supplying components and instru-
mentation, warehouses, and transport-terminal and engi-
neering systems. The nuclear systems of the former USSR
may be read about in detail in the brochure "Nuclear Arms
and Republic Sovereignty," which was prepared by the
Center for Disarmament and Strategic Stability and which
was published in 1992 by the Mezhdunarodnyye Otnosh-
eniya Publishers and which served as the basis for the
analysis.

The strategic offensive forces of the United States in 1991
constituted 1,000 ICBM's fitted with 2,450 nuclear war-
heads, 36 missile-firing submarines (SSBN's) armed with
672 missiles with 5,760 multiple reentry vehicles, and 265

heavy bombers armed with air-launched cruise missiles
and bombs totaling 2,353 nuclear explosives. Ammunition
loads of missiles, SSBN warheads, and bombers were
similarly stored at warehouses and in arsenals, and systems
of military facilities and a research-industrial infrastruc-
ture of the strategic complex had been created also. The
strategic offensive forces of the United States had alto-
gether 4,025 delivery systems and 10,563 nuclear war-
heads.

In accordance with the provisions of the START II Treaty,
the possible composition of the strategic offensive arms of
the United States by the year 2003 will consist of 500
single-warhead ICBM's, 18 SSBN's with 432 missiles and
1,728 multiple reentry vehicles, and 200 heavy bombers
with 1,264 missiles. It is anticipated that the strategic
offensive arms of the United States will retain 2,196
delivery systems and 3,492 nuclear warheads altogether.

On the territory of Russia the terms of the START II
Treaty determine the possibility of the deployment of up to
810 single-warhead missiles of the strategic rocket forces
(of which, 360 new mobile launchers), 24 missile-firing
submarines with 408 missiles and 1,696 multiple reentry
vehicles, and 85 bombers with 540 missiles. The total
composition of the strategic forces of Russia in the version
used for the analysis will be 1,748 delivery systems (mis-
siles) and 3,046 nuclear warheads. It is anticipated that the
changes in the composition of the strategic forces of Russia
could affect the strategic rocket forces and the air force, but
these changes can no longer appreciably influence the
overall composition of the strategic forces.

Subject to unconditional reduction are 176 ICBM's with
1,240 nuclear warheads and 34 heavy bombers (including
10 new TU-160's) with 324 nuclear explosives on the
territory of Ukraine and 104 ICBM's and 40 bombers
totaling 1,360 nuclear munitions on the territory of Kazak-
hstan. Fifty-four ground-mobile SS-25 missiles will be
withdrawn from Belarus. Russia has the lion's share of the
arms to be cut back. Some 413 obsolete SS-11, SS-13, and
SS-17 ICBM's and also 204 SS-18 ICBM's, 70 SS-19
ICBM's, 28 SS-24 (launch silos) and 33 railroad SS-24
ICBM's, 38 missile-firing submarines, and 67 heavy
bombers with their missile and warhead ammunition loads
are to be cut first and foremost.

Only 90 launch silos may be refitted for future missiles,
and more than 500 silos are to be demolished. It is
anticipated that approximately 10 missile bases will be
closed down and that several dozen main military-oriented
factories like, for example, the Barrikady Plant in Vol-
gograd manufacturing SS-24 launchers and the Khruni-
chev Plant manufacturing SS-19 missiles in Moscow will
be reprofiled or liquidated on the territory of Russia. The
closure of the facilities of the Siberian Chemical Works
began in 1990, and of the Krasnoyarsk Nuclear Industrial
Complex and the stoppage of their industrial nuclear
reactors, as of 1992.

The absence of a clear-cut program of the conversion of
military production and a concept of the safeguarding of
Russia's military security for the long term and the uncer-
tainty of future state-political relations between former

Soviet republics are seriously complicating the entire process of nuclear disarmament, the restructuring of military production, and the recovery of the natural environment.

And the question arises: From the environmentalist's viewpoint, is ratification of the START II Treaty a good thing or a bad thing for Russia in the present situation?

...A mechanical reduction in the rivals' capacity for annihilating one another with nuclear weapons from 30 to 20 times over does not reinforce anyone's security. The basis of all disarmament negotiations should be a new concept of security providing for the comprehensive and simultaneous solution of three types of security—military, economic, and environmental—on the basis of the cooperation and mutual interest of our countries, for which the START II Treaty does not provide.

A particular feature of the process of a reduction in strategic offensive arms is the fact that it completes, essentially, a chain of disarmament treaties and coincides with the timeframe for the fulfillment of treaty commitments concerning a reduction in tactical nuclear weapons and conventional arms in Europe and the destruction of toxic chemical agents. It is essential that the entire disarmament process be undertaken in the country under conditions of the need for the accomplishment of economic reform and the availability of a single source of financing, that is, the state treasury.

Aside from the reduction in the strategic arms themselves, the solution of so-called attendant problems, the scale of which is being taken insufficiently into account by Foreign Ministry and Defense Ministry specialists, will require a substantial portion of the financing resources.

First, more than 12,000 nuclear warheads, whose explosives it is anticipated wrenching out only at two test ranges of Russia and at the Arzamas-16 factories, are to be downscaled and decoupled. With regard for the reduction and decoupling of 25,000 tactical nuclear warheads, expenditure on transportation and the building of additional service lines for the decoupling of more than 37,000 nuclear warheads in the 10-year period will be required.

Second, more than 4,000 ballistic missile undercarriages, the bulk of which contains more than 100,000 tonnes of the highly toxic components of liquid rocket fuel, are to be downscaled and decoupled. In chlorine gas equivalent the toxicity of the rocket fuel to be reduced constitutes more than 3 million tonnes and could represent a separate problem of the detoxification of the toxic substances. Unfortunately, facilities for the decoupling of the missiles are far away also, at a distance of up to several thousand kilometers. At the present time only submarine missiles may be decoupled within Russia—in Pashino, near Novosibirsk—and the facilities for the decoupling of missiles of the strategic rocket forces are located in Lesnaya (Belarus) and Sarny (Ukraine). The facilities for the stripping of aircraft are in Engels (Saratov Oblast).

Third, problems of stripping 38 guided-missile carriers and recovering spent nuclear fuel from 76 reactors will require their share of financing in addition to the problems of stripping an even larger quantity of multipurpose nuclear-powered submarines and their reactors to be downscaled as conventional arms. Altogether the country

is by the year 2003 to have stripped and salvaged 140 to 150 nuclear-powered submarines, having found the resources for the recovery of the spent nuclear fuel from 280-300 submarine reactors, which will be the equivalent of the volume of spent nuclear fuel in the preceding 40 years. New centers for stripping and salvaging missile silos and constructing new centers for discharging nuclear reactors and separating and salvaging nuclear fuel and nuclear waste will be needed. It should be remembered that processing 1 metric ton of nuclear fuel produces, according to Ramberg, 1,250 liters of highly active waste and an order of magnitude more of low-active waste, which also needs to be salvaged and stored for several decades. The construction of each guided-missile carrier cost the country several hundred million rubles at prices of the mid-1980's, disposal, three-five times more.

Now, with regard for inflation, how much might an arms race cost the country?

Fourth, the demolition of hundreds of launch silos, the long-distance transportation of dozens of nuclear warheads and thousands of missiles from the military bases to the industrial disposal locations, the enlistment of specialists of the Avangard Plant of the city of Arzamas-16 in the dismantling of the nuclear battle reserves, given the lack of equipment for safe dismantling (GORODSKOY KURYER, 30 January 1993), and the gradual demolition of the infrastructure of the military bases and military production could bring about a sharp increase in the number of technogenic and transport catastrophes. And, consequently, a deterioration in the environmental situation in the places where the military bases and military-industrial factories are located in the country and the mass migration of the servicemen and employees of the military-industrial complex due to be cut back, which will require additional funds for the solution of the said problems.

In the event of the absence of funds for social protection and the assurance of military, nuclear, radiation, chemical, ecological, economic, transport, and other types of safety during performance of the work on reducing the strategic and other arms, Russia could acquire several focal points of sociopolitical tension and a number of catastrophes not a bit less in terms of scale of baneful effect than Kyshtym, Chernobyl, Ionava, and Ufa. Thus financial support for the realization of the START I and START II Treaties in the form in which it has been presented could be for Russia a bottomless Danaides' vessel, into which the public funds poured, however large, would always be insufficient.

Haste in political decisions in respect to disarmament processes in the hope of the assistance of foreign investors could contribute to a growth of the danger of our country's currency-financial bondage. Consequently, the possibilities of the realization of the economic reforms and revival of Russia would be placed in jeopardy.

A solution to the problems of the environmental cleanup of Russia and the elimination of the dumps of death on the grounds of military-industrial factories and at the bottom of the seas and water-storage basins of the country which built up in the years of the arms race would, accordingly, be made more difficult.

A number of independent experts who have for several decades been involved directly in studying the problems of strategic arms propose a constructive path of realization of Russia's disarmament process based on the integral application of a system of measures of military, technological, environmental, and other types of security and control. It is contemplated funding the disarmament process both thanks to the profitable use of the downscaled military equipment for peaceful purposes and from deductions from the profits from the introduction of environmentally clean domestic and foreign technology on the basis of the converted military facilities and military factories.

It is proposed forming theoretical-research teams to substantiate the techniques and paths for reducing the risk of the disarmament process and reprofiling military factories and also pioneer teams capable of assimilating the production of new technology at military enterprises and on the grounds of military facilities which have been vacated. It will be necessary to create individual services and form mobile squads of rescue workers and wide-range specialists from the ranks of former servicemen and employees of the military-industrial complex to perform contract work on averting technogenic and transport catastrophes and processing radioactive and chemically dangerous substances on the grounds of military and military-industrial facilities with payment according to the criterion of proportion of averted damage, as is customary in the developed countries.

Internationally it will be necessary, possibly, to achieve a certain level of national ecological "sufficiency," by analogy with the assurance of military security, and ecological parity in the state of the environment of contiguous states so that each country may effectively engage in political and economic activity and build its own defenses.

Three directions in the elaboration of the concept of ecological security directly dependent on states' defense (military) activity are ascertained at this time:

- 1) environmental protection and the problem of the peaceful solution of conflicts without the use of military force;
- 2) problems of the environmentally stable development of society and nature and the environmentally safe elimination of mass-destruction strategic weapon surpluses;
- 3) international control of the process of preventing environmental risk connected, particularly, with the environmentally safe elimination of international dumps of toxic substances submerged by the victorious countries in 1947 on the bed of the Baltic and near the shores of Australia, with lifting sunken Soviet and American nuclear-powered submarines and the nuclear warheads and nuclear reactors housed on them, and with scientific substantiation of the environmentally safe solution of problems of preventing meteorological catastrophes and destroying the earth's ozone layer under the influence of rocket and space activity.

The package of proposals pertaining to a system of measures for assuring military security has been illustrated quite well in our press and the international press, and it remains merely to insert them sufficiently fully in the text of the START Treaty.

The package of proposals pertaining to the profitable use of the downscaled military equipment for peaceful purposes (with regard for the opinion of the author of the article "Disarmament Needs To Be Intelligent") includes: modernizing ICBM's as civilian rocket delivery systems; refitting nuclear-powered submarines and guided-missile cruisers as submarine craft for the shipment of oil and liquefied gas or the use of modernized nuclear-powered vessels as floating nuclear power stations.

Using modernized heavy bombers and reconnaissance aircraft as flying ecological and geological-prospecting laboratories, positive experience of the use of which (thanks to the installation of magnetic survey equipment) is confirmed by the discovery of a diamond deposit in the White Sea region and promising ore veins containing gold, silver, and complex ores in Uzbekistan and Tajikistan and the experience of the operational surveying of the ecological situation in Voronezh and Kaluga Oblasts.

The use for peaceful purposes of the radioactive substances accumulated in nuclear warheads as the basis for the composition of reactor nuclear fuel could benefit the country to the extent of \$6-10 billion. It is proposed using the disarmed, but not demolished, ICBM silos as shops for the production of, for example, items made from composite materials based on the explosive devices and as warehouses, prescription drug repositories, and places for the burial of radioactive or chemically dangerous substances.

Particular mention should be made of the danger of the consequences of the demolition of the ICBM silos.

Viewers of the Moscow television channel saw on 19 November 1989 that not only the silo but also the roads to it for a distance of several kilometers are demolished when a launch silo is blasted. Additionally, the experience of emergency-rescue operations during the war showed that a water hammer arises from the impact of the explosions of aerial bombs weighing up to 250 kg with the destruction and deformation of pipes and supply lines at a distance of more than two km from the scene of the impact. Iron, concrete, and ceramic pipes, trunk large-diameter pipelines and collector mains, inspection pits, and underground reservoirs were subjected to destruction to a great extent here. A single munition of several metric tons would be used in the demolition of the ICBM silos, and the destruction of supply lines and bridges could be expected at considerably greater distance, consequently. Thus the silo and the ground and supply lines would be destroyed over an area of 25-30 square kilometers.

The package of proposals of environmentally clean technology includes techniques for:

- the production of composite materials;
- the vacuum extraction of rare and precious metals from ore dumps;
- the detoxification of toxic chemical agents and toxic waste;
- small and environmentally clean energy sources;
- the processing of dehydrated trash into fuel with a prescribed octane rating;

the safe covering of toxic waste dumps with one percent chitosan gel and so forth.

The profitability of the proposed technology which is being analyzed is in excess of 1,000 percent a year.

It is anticipated that it would be possible in the third year following the start of introduction of the new technology to renounce in full government financing of disarmament and conversion processes and as of the fifth year start to settle accounts with the government for the production space and credit which had been allocated and provide employment and social protection for the downsizing in the numbers of servicemen and employees of the military-industrial complex and their families.

For realization of the constructive approach it is essential to refrain at this time from ratification of the START II Treaty and to reconsider its provisions in the direction, particularly, of the establishment of productive international cooperation between the United States and Russia and the abandonment of the demolition of launch silos and other infrastructures of military and military-industrial facilities. If we do not reach agreement with the Americans, we will have to radically reduce the strategic nuclear arms our own way. Such a precedent with SALT II is something people of our generation remember.

It is essential simultaneously to radically update the concept of military security with regard for economic, environmental, and genetic factors and to devise legislative-legal support for the introduction of all systems of people's safety and social protection when undertaking disarmament processes.

It would be expedient to entrust the preparation of the scientific substantiation and elaboration of practical proposals in the form of a comprehensive program of disarmament to a creative team composed of official and independent experts and put together the organizational form of a research-practical disarmament center.

From the editors:

We would like to offer ZELENYY MIR readers other opinions concerning the influence of the START II Treaty on Russia's environmental safety. It is quite likely that experts of the Ministry of Defense and Foreign Ministry of Russia, the Russian Academy of Sciences, and the State Department and Defense Department of the United States who took part in preparation of the START II Treaty would share in by no means all respects or would not share at all the opinion of Captain 1st Rank L. Malyshev. We invite them to take issue with the arguments of the author of this letter in ZELENYY MIR.

Russian Supreme Soviet Member Ponders START II
*PM0906103193 Moscow ROSSIYSKAYA GAZETA
 in Russian 9 Jun 93 First Edition p 7*

[Article by Boris Tarasov, member of Russian Federation Supreme Soviet, under "START II Treaty" rubric: "Missile Conundrum for Parliament"]

[Text] As is known, the Treaty on the Further Reduction of Strategic Offensive Arms (START II) was brought hastily into the world. Bewilderment is also occasioned by the fact that the Treaty on the Further Reduction (START II) was

concluded even before the START I Treaty had come into force. And yet START I is not without its faults. It has serious flaws which are certainly not in Russia's favor. Why did the Russian Supreme Soviet approve it? To all appearances, the reckoning was that, despite its serious shortcomings, START I would enable Russia to have the strategic potential necessary to deter nuclear war. In addition, it provided an opportunity to take a step toward the next, qualitatively new stage of disarmament, which would make it possible to eliminate the shortcomings of START I and to prepare a more balanced agreement.

But START II, when it came into the world, merely exacerbated the shortcomings of START I. The parliamentary hearings in the Russian Supreme Soviet and also the active discussion of the document in both the Russian and the foreign press showed the plain fact that inadequate thought had been given to its economic, social, ecological, and other consequences.

First, it is still not clear how the treaty fits within the framework of the new concept of Russian foreign policy, which, according to the constitution, has to be determined by parliament. It is clear that the document should have been assessed not before but after parliament's approval of such a concept.

Second, the treaty's supporters have failed—so far, at least—to provide any proof that is at all convincing of the need for the virtually complete elimination of the basis of our strategic triad—land-based missiles with multiple reentry vehicles [MRV's]. There has not been a satisfactory explanation of why the accord that was reached does not apply at all to sea- and air-launched cruise missiles, which are capable of destroying the Russian strategic potential of highly accurate weapons and in which the United States has an overwhelming advantage (4,000 to our 200).

Third, government experts have failed to refute claims that the treaty ignores the special geostrategic features of Russia, applying U.S. standards to the present structure of its defense potential. The continental location of Russia, which possesses an insignificant number of ice-free ports, creates additional obstacles to deploying the submarine fleet, which is inferior to the U.S. one in terms of qualitative parameters. The same can also be said of strategic aircraft. Our country has always taken second place to the Americans in these two areas. It seems a virtually hopeless task to catch up with them under conditions of the progressive breakup of the military-industrial complex. At the same time Russia has definite advantages with regard to the land-based missiles created by the tremendous efforts of the entire people over many decades. Meanwhile, under the treaty, by the year 2003 our sea-launched nuclear forces will account for no less than 50 percent of the nuclear potential against 30 percent at present. No arguments that are at all convincing have been heard in favor of such a radical change in the configuration of the strategic potential.

Fourth, the treaty not only virtually confirms the superiority achieved by the United States in creating an ABM system but also gives the go-ahead to its further development. This means that just a few years after the elimination of our land-based missiles with MRV's capable of

"breaching" ABM defenses the United States could well be able to destroy practically all our missiles, while itself remaining totally unassailable. It is obvious that we cannot dispense with a careful and graphic study of this question. In the past, as is known, Mikhail Gorbachev's cheerful declarations that we would find a "worthy reply" to the U.S. SDI, which was nicknamed the "star wars" program," proved to be an empty bluff.

Fifth, it has come to light that the Russian participants in the talks, unlike the Americans, failed to reckon up in detail the economic aspects of the disarmament process or to analyze their comparable effectiveness. According to the assessments of U.S. experts, the treaty greatly enhances the significance of the ABM program. But as regards Russia, to judge from the hearings in the Supreme Soviet, we have, instead, to say the opposite. It is known, for example, that it costs more to build and operate missile-carrying submarines, compared with a comparable number of land-based missiles armed with MRV's. In addition, extremely costly global communications systems and systems to protect against antisubmarine weapons are needed to ensure the operations of missile-carrying submarines. According to the "cost-effectiveness" criterion, missiles armed with MRV's are more advantageous than the single-warhead SS-25 missiles permitted by the treaty.

Sixth, practically no account has been taken of the possible social and ecological costs of the treaty. The cost of eliminating nuclear systems has been determined "roughly." In the parliamentary hearings it was shown with specific examples that funding the implementation of START II could become a bottomless barrel for Russia, and no matter how many state resources you pour into it, it will still not be enough. We have, for example, to destroy 9,000 tonnes of toxic rocket fuel components—which, in chlorine equivalent, would amount to more than 1 million tonnes. It is an extremely complex and costly matter to "take apart" 47 missile-carrying submarines and to salvage the spent nuclear fuel from 94 reactors. In the event of a lack of funds for social protection and to ensure radiation, chemical, and antiterrorist safety, Russia could find itself with several hotbeds of sociopolitical tension and a number of Chernobyl-scale disasters. Under conditions of the ongoing economic collapse all these problems are acquiring special acuteness.

The START II Treaty contains a whole number of other obscure points, and even obvious errors, which parliament does not have the right to ignore.

In my view, the optimum way out of the present situation can be seen in an independent and qualified parliamentary expert analysis of the treaty with the submission of the appropriate recommendations. Both people's deputies and broad public circles should be informed of them. Such an expert analysis could result in recommendations on the need either to refuse to ratify the treaty or to make amendments to it which take Russia's vital interests into account. In the latter case it would be expedient to carry out this work with the U.S. Congress.

Mindful of the exceptional importance of START II to national security, the actual procedure for ratifying it should definitely be discussed at a Supreme Soviet session.

I believe that it will be correct to set up a special parliamentary commission with wide powers and an independent budget to involve the necessary research centers and specialists, including foreign ones. The commission's chief task would be to prepare thoroughly substantiated, objective recommendations on the treaty's ratification and to familiarize the country's public with all its aspects. It is only when all the aforementioned circumstances have been taken into account that it would be possible finally to decide the question of ratifying START II in October-November 1993.

Nuclear Weapons Reportedly Removed From Northern Fleet Ships

PM0406102193 Moscow Ostankino Television First Channel Network in Russian 1400 GMT 1 Jun 93

[From the "Novosti" newscast: Video report by V. Anuchin and A. Uchinin, identified by caption; figures in brackets denote broadcast time in GMT in hours, minutes, and seconds]

[Text] [141404] [Anuchin] [Video opens with shot of harbor] The Northern Fleet's 60-year history comprises pages of heroic feats, valor, and glory. I will cite just one figure—89 seamen were awarded the title Hero of the Soviet Union during World War II and, as a sign of gratitude to those who defended the Polar Region during those harsh times, the bronze statue of a sailor was erected overlooking the gulf. Today, the Northern Fleet comprises combat ships which fly the St. Andrew's banner, and modern nuclear submarines like this one which is returning to its home base after almost three months at sea. Incidentally, there are no nuclear weapons on board this submarine. The fact is that all such weapons have been removed from all submarines and ships.

The Northern Fleet's surface vessels are its pride and joy. Vessels like the flagship of the Russian Fleet, the Admiral Kuznetsov aircraft carrier. It is equipped with all types of modern weaponry—not just naval hardware, but also SU-25, MiG-29, and SU-27 fighter aircraft and combat helicopters.

Tens of thousands of people of all nationalities serve with the fleet. They all live as one big happy family. Of course, there are problems. For instance, financial allocations by the state for ship repairs. Likewise, the question of burying nuclear waste has reared its ugly head. And, of course, there are various social problems, primarily the construction of housing in the central belt for those who have finished their service but are obliged to stay here in the Polar Region nevertheless. [Video shows submarine surfacing, view of gulf shoreline, shots of warships, Admiral Kuznetsov aircraft carrier, helicopters, planes, radar room] [141527]

Ukraine Radio on Kravchuk's Talks With Russian Parliamentarians

LD1206152693 Kiev Radio Ukraine World Service in Ukrainian 1900 GMT 11 Jun 93

[Excerpts] Now, friends, as I promised, we will dwell in more detail on one of the events of 11 June, namely the meeting of Ukrainian President Leonid Kravchuk with

representatives of the Russian parliament. Here is my colleague Tamara Kucherenko with the details.

[Kucherenko] Greeting the guests, the president of Ukraine said that he was pleased to see the representatives of all political factions of the Russian parliament. This is proof that such contacts are of mutual interest to both Ukraine and Russia. Incidentally, representatives of many deputies' groups from Ukraine's Supreme Council were present at the meeting from the Ukrainian side.

Kravchuk informed those present that he had a well-grounded conversation with Russian President Boris Yeltsin on 10 June. The talk was mainly about the problems of the Black Sea Fleet. The presidents of both states decided to meet on 17 June. [passage omitted]

The Russian parliamentarians also asked the Ukrainian president to explain Ukraine's position regarding ratification of the START I Treaty. I have no doubt that Ukraine's Supreme Council will ratify this treaty, Kravchuk said. Yet one ought not to forget that this issue is associated with liquid fuel missiles, the service life of which is now coming to an end. And (obviously) [as heard] it is from this that the Supreme Council's decision should proceed. But, Kravchuk emphasized, it is important for Ukraine to have security guarantees.

There are (other) [as heard] issues (here) [as heard] too: Who should dismantle those missiles? There are financial issues: How much will this cost? Ukraine cannot assume this financial expenditure at present. Whatever the case, Kravchuk stressed, it is not worth comforting oneself with the illusion that Ukraine will dismantle nuclear missiles soon. In the Ukrainian president's opinion, this issue should be resolved competently, consistently, and with a view to the future.

One of the Russian people's deputies was interested in what Kravchuk thought about the START II Treaty signed by the United States of America and Russia. Kravchuk's reply was: I found out about this from the television. I do not want to comment on this. [passage omitted]

IZVESTIYA on Ukrainian Nuclear Missile Stance

*PM1506133593 Moscow IZVESTIYA in Russian
15 Jun 93 First Edition p 4*

[Article by Vladimir Nadein: "America by Hook, Russia by Crook; Two Approaches to a Nuclear Missile Ukraine"]

[Text] Through its defense minister Russia has expressed dissatisfaction at U.S. interference in the Russian-Ukrainian dispute over the future of the 176 ICBM's which used to belong to the Soviet Union and which have remained on Ukrainian territory. General Grachev has told the Americans that, first, these missiles are Russia's property and, second, that RUssia and Ukraine will sort it all out for themselves.

The general's two theses are too contentious to build a long-term political installation on. That is why U.S. Defense Secretary Les Aspin addressed a few sympathetic sighs to his Russian counterpart before setting off for Kiev and concluding an agreement which some U.S. newspapers have already called a giant step in the right direction.

Something for Everyone

The agreement concerns not so much even the missiles as the 1,240 nuclear warheads for them. Experiencing justified horror in the face of the uncontrolled spread of nuclear weapons, Washington suggested that all these warheads, after being removed from the missiles, should not be removed to Russia, as previously envisaged by multilateral accords, but should remain on Ukrainian territory. But temporarily, and under international control.

Kiev agreed. To all appearances it was attracted by the prospect of obtaining \$2.8 billion for the nuclear fuel extracted from Ukrainian missiles and reprocessed at U.S. enterprises. Previously it was believed that the reprocessing would take place in Russia, so that the Ukrainians saw the prospects of compensation as involving rubles to too great an extent.

The opinion that Washington, to the detriment of the other republics of the former Union, has become too obsessed with the exclusive importance of Russia is regarded in Kiev in general as justified and as irrefutable in the nuclear missile sphere. People here well remember the words of the previous U.S. President, George Bush, about "suicidal nationalism." Nor have they forgotten the spring of 1992, when Bush forged straight ahead, seeking agreement to serious talks from the four envious, unfriendly, mutual suspicious heirs to the USSR's nuclear might.

The result of the Lisbon conference in May last year was the signing by Ukraine, Belarus, and Kazakhstan of the nonproliferation treaty and the agreement on the gradual dismantling and removal to Russia of Soviet nuclear missile weapons and the accession of all three to the list of non-nuclear states. The eagerness with which admission to the "nuclear-free club" is proceeding is borne out by the sluggish process of ratification. Only Belarus has completed it without reservations.

Of course, Bush was pursuing U.S. national interests and using the carrot and the stick to get the new presidents to renounce the nuclear status which had descended on them. But outwardly it looked as though it was a bias in favor of Moscow. Many people in Kiev assess B. Clinton's agreement to the Vancouver meeting in just the same way, believing that the Ukrainian president needs no less Western support than the Russian president. And is no less deserving of it.

Someone Else's Football

Explaining the recent appointment of Aviation Marshal Shaposhnikov as secretary of the Security Council, B. Yeltsin said: "The nuclear forces are being transferred to Russia and to Russian jurisdiction."

Only six months ago the Russian president would probably have preferred to refrain from this direct statement. Today the wind of events is throwing up onto the Russian shore all the supercomplicated combat equipment with which the new nuclear powers simply cannot cope.

Ukrainian General Volodymyr Tolubko, well known for his radical nationalist feelings (not to be confused with his uncle, the late V.F. Tolubko, commander in chief of the USSR strategic missile forces) said in a telephone conversation with a Western correspondent: "Do you know what

the word 'idiots' means? Idiots are people who give up their nuclear weapons of their own accord."

It sounds good. But President L. Kravchuk, Ukrainian Foreign Minister A. Zlenko, and Defense Minister K. Morozov, who advocate a restrained nuclear policy for their country, were most likely right to give a different definition. For instance: Idiots are people who obstinately close their eyes to the obvious consequences of their actions.

Addressing a session of the Supreme Rada, Anatoliy Zlenko warned legislators that the refusal to observe the agreements which have been signed will not only create in the West an image of Ukraine as an unreliable partner but will also lead "to the reduction of economic ties and a trade embargo or even blockade." There is no doubt that President Kravchuk was also speaking with the minister's voice.

Better than anyone L. Kravchuk knows how close he is to acquiring "positive control" over strategic weapons. That is to the opportunity not only of blocking but also of launching missiles themselves. The president constantly says that his country does not need this, but he does not deny his scientists' ability to fit keys to the electromagnetic locks of the missiles in Ukraine. Russian and American experts agree that the Ukrainians need approximately six months to be completely free of Moscow's "football."

The White House believes that it must turn to face Ukraine immediately, because time will not wait.

Race Against Time

Russia is also relying on the inexorability of time, but it is drawing the opposite conclusions from this, to wit that in approximately six months it will become obvious to the Ukrainians themselves that keeping the nuclear missile potential safe is a pleasure which Kiev simply cannot afford. Neither now nor in the foreseeable future.

Proceeding to all appearances from the thesis that idiots are people who pay for what they could get for nothing, the Russians are suggesting to the Americans that they refrain from any actions, allowing events to take their natural course.

Of course, behind this advice there lies not only concern for the U.S. taxpayers' money. The agreement concluded by Les Aspin in Kiev contains a number of questions to which not even its authors can yet give the answer. Analyzing the situation which is taking shape after the positioning of nuclear missiles in Ukraine under international control, THE WALL STREET JOURNAL puts these questions like this: "What will happen if Ukraine suddenly decides it wants access to the warheads? Will the guard of international forces shoot at the people who want to take them? Must there be a vote in the United Nations to remove the warheads from this guard? Who will have the right to put them back on the missiles?"

Reward for Disobedience

To these important problems we should add those which directly affect Russia's interests as a nuclear state. Ukraine did not consult with Russia either before or during Les Aspin's visit. Yet the dismantling of former Soviet missiles under international control will turn into public property

the secret codes, electromagnetic designs, and much else which is an important secret and has its own very high price for Russia.

Finally, one must consider the effect of the "reward for disobedience." In rewarding Ukraine for refusing to observe the accords signed in Lisbon Washington must consider the attention with which Minsk and Alma-Ata are following the growth of the nuclear trading. Here too there are wits among the generals. And if jokes about idiots are paid for so dearly in hard currency then both capitals may think up something comical. In both form and content.

Moscow Radio Questions Ukraine's Non-Nuclear Status

LD1506192493 Moscow Radio Moscow World Service in English 1810 GMT 13 Jun 93

[Editorial Report] Moscow Radio Moscow World Service in English at 1810 GMT on 13 Jun broadcasts a 20-minute "Top Priority" program, presented by Irina Tkachenko.

Irina Tkachenko discusses, among other issues, control over nuclear arms, whether the NPT [non-proliferation treaty] is becoming a treaty of the past and whether Ukraine's non-nuclear status is a sham with Aleksandr Karnovalev [name as heard], Director of the Center for Military Policy and System Analysis of the U.S. and Canada Studies Institute.

They note that Ukraine is in no hurry to sign the START-1 Treaty and the NPT despite its sovereignty declaration being based on the principle of non-nuclear status and they consider the political reasons for the change in Ukraine's position, noting that while START-1 may be ratified shortly, the NPT may be postponed with Ukraine citing instability in Russia as one reason for this, though this is seen as political maneuvering as Ukraine already has multi-national political and military guarantees.

Karnovalev considers Kravchuk's stand, noting it is difficult for him to decisively oppose parliament and that it may suit him not to do so for some years, in view of Western credits for example. He criticizes the West for not having officially diplomatically recognized the new states after the initial break-up of the USSR noting Ukraine was allowed to violate previous obligations with a certain amount of blessing from the West. He expresses his worries over the technical condition of Ukrainian nuclear weapons and stresses the need for the international community to guard against a chain reaction. On the subject of a comprehensive nuclear testing moratorium, he feels if the NPT regime falls then nuclear testing will continue but if it is preserved a test ban can be seriously discussed.

Ukrainian Press on START I

Stance Defended to French Visitors

LD1206134993 Kiev Radio Ukraine World Service in Ukrainian 1800 GMT 11 Jun 93

[Text] A meeting took place on 11 June at the commission of the Supreme Council of Ukraine for Issues of Defense and State Security with the military delegation from France headed by Jacques Lanxade, armed forces chief of staff of that country.

During the course of the conversation, Olesandr Tarasenko, deputy chairman of the commission, inter alia emphasized that Ukraine is consistently adhering to its declared policy of being nonaligned and non-nuclear. In particular, in this context, he set forth parliament's position regarding nuclear weapons on Ukraine's territory and its approaches to ratification of the START I Treaty.

Admiral Lanxade, in particular, expressed support for Ukraine's position regarding the necessity for appropriate reduction of nuclear arsenals by all states. In his opinion, Ukraine should search for conditions of its security outside nuclear weapons. Lanxade evaluated highly the role of the Ukrainian peacemaking battalion, which is in the former Yugoslavia. According to him, Ukraine is becoming one of the dramatis personae of European security and should extend its participation in the peacemaking forces of the United Nations.

Some other issues were also discussed during the meeting.

Deputy Chairman of Parliament Says Treaty Will Be Ratified

*AU1506181993 Kiev HOLOS UKRAYINY in Ukrainian
12 Jun 93 p 2*

[Statement by the Press Service of Ukraine's Supreme Council: "The Dialogue Is Becoming Uninterrupted"]

[Text] On 10 June, First Deputy Chairman of Ukraine's Supreme Council Vasyl Vasylyovych Durdynets received John Hardt [name as transliterated], associate director of the U.S. Congressional Research Service.

The conversation, which proceeded in an atmosphere of sincere respect and mutual understanding, was a continuation of the dialogue and businesslike cooperation that have become practically uninterrupted.

Vasyl Vasylyovych Durdynets briefed the guest on the entire spectrum of practical deeds and problems that the Parliament of independent Ukraine had to deal with. It is precisely parliament that has become the state's political rostrum, and it is open to all. Legislators must elaborate, first and foremost and in front of everybody, laws and other legal documents on the most acute questions, documents that are so necessary for building Ukrainian statehood. These documents will ensure a consecutive and steady movement of our state and society, starting from changes in the social foundations, which are being undermined by steps towards the market that are not always properly weighed, and ending with such problems as the country's internal and external security and the establishment of order in the state. Today, concluded Vasyl Vasylyovych, we have enough problems: From preparing for the ratification of START-1 to resolving problems associated with the exacerbation of the social and political situation in connection with the beginning of the undeclared miners' strike. Parliament must again look for legal ways to relieve tensions.

John Hardt expressed his satisfaction with the information he had received and an understanding of the objective conditions in which the parliament of new Ukraine has to function. The guest returned to the theme that was touched upon by Vasyl Vasylyovych Durdynets on START-1 and on Ukraine's acquiring a nuclear-free status. He was

pleased with the information that a working group of deputies created by the Ukraine Parliament has already held a meeting and worked out a procedure for further work on the draft decree concerning these questions. He also advanced proposals on possible trends of cooperation between the U.S. Congress Research Service and Ukraine's Supreme Council and its secretariat.

Kravchuk Said 'Convinced' of START Ratification

*AU1406170993 Kiev MOLOD UKRAYINY in Ukrainian
11 Jun 93 p 1*

[Statement by the Press Center of Ukraine's Ministry of Foreign Affairs: "Will There Be a Meeting Between Kravchuk and Clinton?"]

[Text] Will there be a meeting between Kravchuk and Clinton? For the time being, it is only possible to speak about its possibility rather than likelihood. American guests, mainly high-ranking officials, have lately been arriving in Ukraine increasingly often. Some people tend to associate the intensification in the relations between Ukraine and the United States precisely with the discussion of the ratification of START and Ukraine's joining the Nuclear Nonproliferation Treaty. At any rate, having familiarized themselves more thoroughly with our position, the Americans show more understanding of it than they did before. Three weeks ago, Strobe Talbott, ambassador for special missions, visited our country. He spoke about a possibility of signing a U.S.-Ukrainian charter on partnership and friendship. As Anton Buteyko, head of the Presidential Service for International Issues, told journalists, work on this charter will proceed fast, and when it is ready, it may be signed by the Ukrainian and U.S. presidents.

However, will the United States maintain that understanding if the Ukrainian parliament does not ratify START? Anton Buteyko said that President Kravchuk is convinced: START will be ratified, and for that reason, no other variant was elaborated by his services.

Russia Must Pay for Nuclear Warheads

*LD1406221793 Kiev Radio Ukraine World Service
in Ukrainian 1900 GMT 14 Jun 93*

[Text] Ukrainian Prime Minister Leonid Kuchma received Wim Kok, deputy prime minister and minister of finance of the Kingdom of Netherlands, who came to Kiev on 14 June at the head of his country's official government delegation. Leonid Kuchma informed Wim Kok about the economic situation in Ukraine, noting that, under conditions in which Russia is increasing the prices of energy sources monthly, it is very difficult for the government to pursue the course of market reforms.

He also clarified the Ukrainian Government's stance on the issue of the START-1 Treaty ratification. The complexity of the situation lies in the fact that, as soon as Ukraine ratifies the treaty, according to international law, nuclear warheads on Ukraine's territory will automatically become Russia's property without any monetary compensation. That is why the Ukrainian Government has placed a condition on signing an agreement whereby Russia would undertake to supply Ukraine with nuclear fuel for

nuclear power stations or to pay for the warheads. However, the media in Moscow is distorting the Ukrainian Government's position, seeing political, not economic motives behind it.

Denial of Russian TV Charges

AU1506135793 Kiev HOLOS UKRAYINY in Ukrainian
12 Jun 93 p 1

[Unattributed statement: "The Canards Season Is on Again"]

[Text] On 7 June, while commenting on U.S. Defense Minister Les Aspin's official visit to Ukraine, the "Ostankino" Television Company alleged that there is no money in Ukraine not only for disarmament but also for maintaining its nuclear missile complexes. "For one and a half years, no money has been allocated for conducting scheduled work, and Ukraine's Ministry of Defense does not allow Russian specialists to visit these facilities," asserted the Russian Television Company. However, the Press Service of Ukraine's Ministry of Defense stated that this information is yet another piece of misinformation.

Ukraine has not ceased to finance the servicing and maintenance of nuclear facilities on its territory. Ukraine's Ministry of Defense has allocated 700 million rubles to finance warranted and authors' supervision by Russian specialists.

The statement emphasizes that over the period of existence of Ukraine's Armed Forces, there has not been a single case when experts or specialists of the Russian Federation would not be admitted to nuclear missile facilities.

Ukrainian Foreign Minister on Denuclearization

AU1606132193 Vienna DIE PRESSE in German
16 Jun 93 p 3

[Interview with Foreign Minister Anatoliy Zlenko by Burkhard Bischof; place and date not given: "Otherwise We Would Have To Sell Uranium"]

[Excerpts] **Bischof:** Mr. Foreign Minister, in Copenhagen you recently warned the Western states against exerting pressure on Ukraine regarding the ratification of the first treaty on the reduction of strategic nuclear weapons (START I). What was the reason for that?

Zlenko: We have found that pressure by some nuclear powers on Ukraine tend to be counterproductive. Pressure is simply not the right way in this matter to persuade Ukraine to take a certain step. We are calling for cooperation, understanding, and a common language in order to solve the acute problem of ratifying and implementing the START Treaty.

Bischof: What should this cooperation be like?

Zlenko: We must concentrate on three essential points. The first concerns guarantees for our national security; this is primarily the business of the nuclear powers. There must be some multilateral agreements on this issue.

The second point concerns comprehensive economic aid for Ukraine. After the ratification, we must immediately dedicate ourselves to implementing the START I Treaty. Unfortunately, we do not have enough financial means of

our own for this purpose. In this connection, I appeal to the other countries to consider that the implementation of the agreement is not only the business of Ukraine, but the entire international community.

Bischof: To whom are you addressing your appeal?

Zlenko: We would be very grateful if various European institutions, such as the EC, were to adopt a position on this matter and declare their intention to cooperate with Ukraine in implementing this treaty. This appeal is also addressed to the United Nations.

The third question concerns compensation for certain components of the nuclear weapons—above all, highly enriched uranium. We want compensation for that; otherwise, we would have to sell the uranium to interested states.

Bischof: Has the West already reacted to your appeal? Has the pressure already become less?

Zlenko: We are noticing everyday that the West is beginning to better understand our position. However, our work continues; I am in constant contact with my counterparts in other countries and am always convincing them of the importance of a common solution.

Bischof: One day after you appealed to the deputies in the Kiev Parliament to ratify the START Treaty quickly because otherwise Ukraine would be threatened with international isolation, Prime Minister Leonid Kuchma demanded that Ukraine should temporarily declare itself a nuclear power and keep the 46 strategic SS-24 missiles. What do you think about his move?

Zlenko: This was an interpretation of what parliamentary deputies reported from a closed meeting. Publicly, however, the Ukrainian prime minister never said anything about Ukraine's potential status as a nuclear power.

I cannot interpret and comment on what the head of government said at a closed meeting. It remains for every deputy to express his view on that.

Bischof: Many of your fellow-citizens complain that the West cares too little about events in Ukraine and is primarily interested in the political and economic developments in Russia. Do you also share this view?

Zlenko: I, just like my government, am very disappointed about the attitude of some Western countries, which are exclusively focusing on Russia with the policy toward the East. However, it should be in the West's interest to support the new independent states in the geopolitical area of the former Soviet Union and help safeguard and stabilize the situation politically and economically so that harmonious relations will develop between the new states.

It seems to me to be the wrong way if the West concentrates its direct aid almost exclusively on Russia because this might create an imbalance in the development of the new states. The West must deal with all successors of the USSR, even if it does have to do so particularly regarding the two largest ones, Russia and Ukraine. [passage omitted]

French TV Carries Report on Nuclear Submarine Base

LD1206172693

[Editorial Report] Paris France-2 Television Network in French at 0000 GMT on 12 June carries the 62-minute recorded "Envoye Special" program, with this edition entitled "Red October." Reception is good.

This "exclusive" report is from the secret "Murmansk-150" nuclear base in Russia, not far from the Norwegian border. The announcer notes that the film crew was allowed inside the base and inside a submarine but with restrictions on filming. Interviews with officers, sailors, and civilians were also allowed. A nuclear alert exercise was also filmed.

The commander of the base, Anatoliy Tisetskiy, is interviewed at length throughout the program. Asked at one point in the interview about his political preferences, the commander says he would defend democracy. When asked what he would do in the case of civil war, he says that this is a tough question to answer and that he has not thought about it yet.

The following people are interviewed during the program:

—A driver at the base, Oleg Schakhmoradov, who reveals to the crew the nuclear dumping site not far from the base and talks about the absence of radioactivity safety regulations at the base. The announcer then notes:

"Our report takes a dramatic turn. Oleg, the driver who allowed us to discover the nuclear dumping site for the (Andrievka) base, died a few hours after talking to us. Heart attack, said the official version. Perhaps true, perhaps untrue. True or untrue, the rule of the system does not allow them to think."

—Captain Leonid Didikin, who notes that the base is the most important one in Russia. He was filmed on duty.

—Two local female doctors at the base, who say they cannot voice their fears about health and safety regulations because they do not want to put their officer husbands in a difficult situation.

Asked whether they know about the level of radioactivity, one of them says: "Here we have a newspaper called ZAPADNAYA LITSA, which tried in vain to carry out an inquiry on this subject. Following that episode, the local radio repeatedly said that the level of radioactivity was normal."

Asked if they think all of this is untrue, one of the doctors says: "Of course, we repeatedly suffer from nosebleeds and bad headaches." Asked why they don't protest, one of them says: "Because we are all married to Navy officers or sailors. We don't want to create problems at work for them. A protest can be ended in a simple way." She asks the cameraman: "Are you still recording?" She then says: "They would simply put a machine gun near every door. End of protest, end of strike, and we would be fired within 24 hours!"

—Two former officers, Sergiy Dognikov and Viktor Razumov, who served at the base and resigned from the Navy over their disagreement with the military establishment over safety matters.

—The former wife of an officer who is still living near the base with her children. She talks about the loneliness of women and children and the health problems at the base.

The program ends with a studio interview with reporter Basile Gregoriyev, who speaks in Russian with a simultaneous translation into French, and a French former submarine commander on their impressions on the film. The report was apparently made by a Russian crew, although the announcer does not say so specifically at the beginning.

SDI, SPACE ARMS, GLOBAL DEFENSE

Five Satellites To Be Launched in June

*LD0806151193 Moscow ITAR-TASS in English
1342 GMT 8 Jun 93*

[By ITAR-TASS correspondent Rena Kuznetsova]

[Text] Moscow June 8 TASS—A total of five artificial Cosmos earth satellites will be launched with a rocket booster in June from the Plesetsk space launching grounds, sources at the press center of the Russian aerospace forces told ITAR-TASS today.

The latest launch on May 11 put in the orbit six artificial earth satellites (from Cosmos-2245 through Cosmos-2250) with a Tsyklon rocket booster.

Russian Spacecraft Plant in 'Dire Need' of Subsidy

*PM0706125393 Moscow Russian Television Network
in Russian 1430 GMT 3 Jun 93*

[From the "M-Trust" program: Video report by A. Yurov and M. Fokeyev, identified by caption; figures in brackets denote broadcast time in GMT in hours, minutes, and seconds]

[Text] [143651] **Yurov:** [Video opens with shot of space capsule] The act of looking at ourselves with new eyes almost always means that ahead of us lies fresh and more profound understanding, which in turn presents everything taken as read up to then in a new light. Unexpected aspects of what is already known delight the observer. All the aforesaid applies in full to space-sector industries. So much has been said about the development of space technology that it is impossible to keep track. In fact, it is hard in our country to find a more popular topic which at the same time is so inaccessible. It would seem that everything there is to know is known. Not a single theme has been left unexplored by journalists. Nevertheless it would do no harm today to focus once again on the subject of space, space technology, and its specialists.

[N.I. Leontyev, chief designer at the "Khimmash" Design Bureau, identified by caption] The "Khimmash" [chemical machine-building] Design Bureau was founded 50 years ago by eminent air- and spacecraft engineer Aleksey Mikhailovich Isayev. In this time the labor collective has created over 100 types of engine and engine assembly.

Yurov: From the very beginning, the "Khimmash" Design Bureau was involved in all space exploration programs. Korolev and Isayev worked together.

Leontyev: Here in front of us you can see the engine assembly with which the world's first cosmonaut, Yuriy Alekseyevich Gagarin, circumnavigated the Earth. And he touched down successfully with the help of this very engine assembly.

Yurov: Research into near-Earth space necessitated the creation of new, more sophisticated, and ever more advanced systems.

Leontyev: This engine assembly was instrumental in near-Earth space exploration over a very long period of time.

Yuriy: The design bureau also built engine assemblies for the Soviet-American "Soyuz-Apollo" program. In the subsequent development of space technology yet another engine assembly unit was designed and built here.

Leontyev: This engine assembly differs from the one on my left insofar as this one uses a fuel component feeding system which does not incorporate a turbo-pump to expel the components from the fuel tanks.

Yurov: This engine assembly is still in use today. It is used for dockings with the "Mir" space station, for cargo deliveries on "Progress" spacecraft.

The design bureau is also involved in developing engine assemblies for outer space exploration.

Leontyev: The engine boasts unique parameters. There is nothing else in the world to match this engine. It has very high energy-to-mass ratio characteristics, and it has already proved very reliable. It is a reignitable engine. It can guarantee reliable operation in terms of ignition after many years of non-use in space.

Cooperation With EC

No Agreement Yet

AU0706092193 Paris AFP in English 0843 GMT
7 Jun 93

[Text] Moscow, June 7 (AFP)—Russia and the European Community (E.C.) have made progress on cooperating in space, but a free-trade partnership deal will not be ready for the E.C. summit in Copenhagen on June 21-22, E.C. Commissioner Sir Leon Brittan said here on Monday.

"It's better to have a good agreement than a quick agreement," Sir Leon, who is responsible for E.C. external economic relations, said.

Brittan said that "substantial progress" had been made and that negotiators had made "a lot of effort" to prepare an agreement in time for the summit.

Brittan, who arrived here on Thursday, said that the community had reached an agreement from 1995 to 2000 on space with Russian officials.

The agreement, which has yet to be ratified by the Russian side, concerned 12 launch operations, he said.

The overall agreement involved "technical problems." Russia was not satisfied with some aspects of the agreement and was not yet ready to conclude it, he told a press conference. A fifth round of negotiations was to be held in Brussels on June 9.

Under the proposed partnership agreement the two sides would create a free-trade zone based on the free movement of people, goods, services and capital.

In April the 12 E.C. members gave their approval for a broadening of the negotiations while stressing that aspects of the arrangements depended on such matters as respect for human rights.

Russian President Boris Yeltsin is expected to attend the E.C. summit at the end of a two-day official visit to Denmark.

Brittan, who had had five hours of talks on Friday with Russian Vice Prime Minister for External Economic Relations Alexander Shokin, said that Russia had made remarkable progress but that it was difficult to recognise Russia as a country with a functioning market economy.

Brittan, who was to meet Yeltsin later on Monday, said that trade between Russia and the E.C. totalled 2.7 billion ECUs (3.3 billion dollars) during the first six months of 1992 and said that the community was Russia's main trading partner.

Brittan said that "Russia has expressed its intention to join the GATT (General Agreement on Tariffs and Trade), but it needs some more time."

EC Experiments on Russian Photon Capsule Summarized

BR0806143593 Paris MUTATIONS MICROGRAVITE
in French 15 May 93 pp 5-6

[Unattributed article: "ESA Experimental Projects Aboard Russian Photon Capsules"]

[Text] Photon recoverable capsules will carry out microgravity experiments on board spacecraft for the European Space Agency [ESA] between 1993 and 1996.

The experiments will be conducted following an agreement between the Russian authorities and the ESA, which has a budget of 35 million French francs [Fr]. The agreement will permit the relaunch of the Biopan and Biobox experimental modules and two new experiments in fluid physics, including one on "liquid columns" for the ELGRA (European Low-Gravity Research Association).

Biopan

Developed by the German company Keyser Threde at a cost of Fr14 million, Biopan is a container fixed to the outside of the capsule. It opens when the capsule is in orbit to expose the experiments to cosmic rays and closes prior to the capsule's reentry into the atmosphere.

Biopan has already completed a two-week flight on board the Photon. It should be launched three times during the new program.

Biobox

Built by Dornier (Deutsche Aerospace) at a cost of approximately Fr20 million, Biobox is an incubator intended to study the effects of microgravity on living organisms. It contains a centrifuge to reproduce the Earth's gravity in order to determine the effects of microgravity compared to general physical conditions in orbit. Biobox was launched in December 1992 on board a Photon capsule. The flight

was disturbed by a rise in the temperature due to a malfunctioning in the heat control system. Once the problems are solved, Biobox should complete two new flights on Photon.

Russian-French Joint Space Mission

*LD0906202493 Moscow ITAR-TASS in English
1820 GMT 9 Jun 93*

[By ITAR-TASS correspondent Rena Kuznetsova]

[Text] Moscow June 9 TASS—The results of four day final tests underwent by one of the two Russo-French space crews were assessed as excellent. On Wednesday the pre-start training programme was completed as the other crew have passed their tests a bit earlier. The start of the three-week joint space expedition is scheduled for July 1, 1993.

Experts at the Cosmonauts Training Centre told ITAR-TASS that the rest of the pre-start period will be devoted to finalizing preparations for the future expedition. Before the start the state commission will define which of the two crews will go up. The first crew consists of Vasiliy Tsibliyev, Aleksandr Serebrov and Jean-Pierre Haignere, the second one—Viktor Afanasyev, Gennadiy Manakov and Claudie Deshayes.

Defense Ministry Announces Successful Space Complex Text

LD0506075593 Moscow Radio Moscow World Service in English 0700 GMT 5 Jun 93

[Text] Russia has successfully tested a super light and mobile rocket and space complex dubbed Start. It was built at the request of commercial structures and on their money. It will be used to launch communications satellites and space laboratories. Today Russia is the only space power having rockets of such class. This has been announced at the press center of the Defense Ministry. The Start complex can launch vehicles weighing up to one tonne. This is one example of the conversion of Russia's defense factories.

Baykonur Cosmodrome in the News

Future Tied to Russian-Kazakh Cooperation
OW0106095393 Moscow Ostankino Television First Channel and Orbita Networks in Russian 1845 GMT 25 May 93

[S. Fedorova "Baykonur TV" video report; from the "Utro" program]

[Text] The first anniversary of signing of the agreement between Russian and Kazakhstan on joint use of the Baykonur Cosmodrome was observed on 25 May. This is how correspondents of the Baykonur-TV television station see the past year and the present situation of the Russian and Kazakh test site. [video shows file film on Kazakhstan President Nazarbayev's arrival in Baykonur]

[Begin recording] **Fedorova:** On 30 April last year, on one of his visits to the cosmodrome, Kazakh President Nursultan Nazarbayev expressed his views on the future of

Baykonur in very decisive terms. [Video shows Nazarbayev arriving at Baykonur, touring facilities, including the Buran shuttle assembly shop, speaking to camera]

Nazarbayev: I am convinced that whatever happens, Leninsk must exist and Baykonur must work. You know the policy I am pursuing, and I hope that together we will find a common approach because this would be beneficial for everyone. I am confident of this. In any event, if the Ukraine or Belarus do not want to take part, we will agree on everything with Russia.

Fedorova: Boris Yeltsin, the president of Russia, did not give our company an exclusive interview, however his position was determined by the signing of the agreement between Russia and Kazakhstan on the joint use of the Baykonur Cosmodrome. It would be very tempting to say the document laid a reliable international legal basis for the operations of the cosmodrome and that this, in turn, would ensure the fulfillment of inter-state and national programs for the exploration of space and would stabilize the situation in the city and at the cosmodrome. But the facts are different. [video shows officers and men working in the open preparing a rocket launch then cuts to an interview with an unidentified major general]

General: I signed a letter to the president of the Republic of Kazakhstan outlining problems that have become acute. Further indifference to their resolution will simply lead to the demise of the cosmodrome, because the work environment was so tense for people during 1992 that they simply will not survive further. [video pans interior of building showing serious signs of wear]

Fedorova: The military construction units at the cosmodrome, which came under the jurisdiction of Kazakhstan in May 1992, were sharply decreased. Today the main facilities are already operating beyond the capabilities of their guaranteed life. The cosmodrome survived the year on legal promises and an absolute minimum of financial and labor investments. And today, 4 billion rubles [R] have been received from Russia instead of the required more than R9 billion. There is a critical shortage of inductees to maintain manpower strength and an increasing deficit of officers. There are problems with the provision of foodstuffs.

All of these issues require immediate solutions at a state level. The personnel of the cosmodrome continue to fulfill the set tasks, but only at the price of enormous extra efforts. Leninsk, with its undeveloped production and social spheres, continues to survive only as an auxiliary structure of the cosmodrome. The crime situation in the city is of particular concern. Facts show that many newly established small and private enterprises, cooperatives, and companies with limited responsibility buy up or plunder foodstuffs, equipment, instruments, military property, and nonferrous metals which are then shipped out of the cosmodrome without any controls. Incidents of armed attacks on military units' parking lots and the theft of equipment, cases of hooliganism, and other crimes have become almost the norm in our city.

Here is how Vitaliy Prynkin, head of the Leninsk City Administration, assesses a year of work under the new conditions:

Prykin: Despite someone's desire to possibly destroy what has been created here, they will not succeed and this is confirmed by the enormous and responsible work that continues to be carried out at Baykonur Cosmodrome despite everything. And the city is trying to do everything possible to ensure a normal life for the people who work here.

Fedorova: Yes, I do not want to think of the past year as a year of unfulfilled hopes. As always, Baykonur lives with hopes, and the main one of these in the coming visit of the presidents of Russia and Kazakhstan. The historic responsibility of these states for the future of Baykonur is great, and only the decisive actions of the presidents and effective cooperation, mutual understanding, and respect for the national interests of both states will be capable of reviving Baykonur. [end recording]

Subject of Letter From Yeltsin to Nazarbayev
*PM1106119003 Moscow KRASNAYA ZVEZDA
in Russian 11 Jun 93 p 1*

[Anatoliy Ladin report: "Russian President Concerned at Fate of Baykonur"]

[Text] Almaty—Citing the Baykonur Cosmodrome Press Center, the newspaper EKSPRESS K has published a letter from President Boris Yeltsin of Russia to President Nursultan Nazarbayev of Kazakhstan in which the Russian Federation president proposes deepening the two states' cooperation in ensuring the cosmodrome's vital activity.

Referring to the signed bilateral documents on the cosmodrome, Boris Yeltsin points out that a mechanism for realizing the agreements and accords reached has not yet clearly taken shape. This applies, above all, to such key questions for the cosmodrome's functioning as the legal status of the Russian formations, without which its activity would be paralyzed, the principles of shared funding, manning with personnel, and ensuring law and order and security at the cosmodrome.

Mindful of the historical responsibility of the Russian Federation and the Republic of Kazakhstan for the fate of the unique space infrastructure project, the Russian president suggested to Nursultan Nazarbayev that they discuss Baykonur's problems at a personal meeting, agree on ways to overcome them, and adopt the necessary decisions.

Russian Military Assets Reborn as Space Facilities

Former Military School Becomes Space Training Academy
OW0106084793 Moscow Ostankino Television First Channel and Orbita Networks in Russian 1845 GMT 25 May 93

[V. Soldatenkov VojenTV (Ministry of Defense Television Studio) video report; from the "Utro" program]

[Text] Now to St. Petersburg where the only military school, rather former military school, in Russia and in the CIS countries training military specialists for the Space Forces of the Ministry of Defense is located. Now, this school named after Mozhayskiy, has been renamed the Mozhayskiy Academy. [video shows exterior of academy

then pans static models of space and aviation equipment and wall charts in the school]

[Begin Soldatenkov Recording] The Mozhayskiy Red Banner Military Space Engineering Academy is the only military higher educational institution training specialists for Military Space Forces units. By historic coincidence, the First Military Engineering School, established by Peter the First; the Noblemen's Regiment; the Pavel Military and Vladimir Cadet Schools; and the Military-Technical and Military-Theoretical Pilots' Schools were located on the grounds of the academy. Mikhail Illarionovich Kutuzov, Dorokhov, and Seslavin—heroes of the 1812 Fatherland War; and Lyapidevskiy and Nikolay Kamanin—the first Heroes of the Soviet Union, studied here.

Presently the academy has become a polytechnical military educational institution, and engineers of a variety of disciplines are trained in its faculties. They include mechanical, electrical, power, construction, and geophysical engineers; mathematicians; and electronics and radio engineers. The academy is now a facility with a modern teaching laboratory basis. Students have the latest weapons and military equipment at their disposal. [video shows uniformed cadets at computer consoles] Here they are also familiarized with models of equipment which was used in early space research.

Classroom sessions for students are structured as realistically as possible to approximate their future work in the forces. In the service, they will be responsible for the launches of spaceships at cosmodromes, the operation of telemetry stations and the Space Flight Control Center, and they will work at the Center for Cosmonaut Training. [end recording]

Space Launch Complex
LD2805193093 Moscow ITAR-TASS in English 1716 GMT 28 May 93

[By ITAR-TASS correspondent Veronika Romanenkova]

[Text] Moscow May 28 TASS—The Start space rocket complex, created with off-budget means within the conversion framework, is expected to be show-launched at the end of 1993, director of the complex scientific-technical center and project author Yuriy Solomonov told the Start presentation ceremony here today.

"We will offer paid services to put spacecraft into the orbit either from Russian territory or outside it. It could be any launching pad with a solid surface," Solomonov told ITAR-TASS.

Start continues the Start-1 project, which included the launch of a rocket booster with a spacecraft on March 25. Start is better than Start-1 since it can put into the orbit bigger spacecraft.

In Solomonov's opinion, the center's launching ability is unlimited. "Everything will depend on offers of the clients, including those foreign (the United States, Sweden and Norway), many of which the center has already now." Work is being done to sign a possible contract in August, he added.

The center carries legal responsibility for the quality of contract fulfillment. Thus, if a spacecraft is not put into the planned orbit, the center will pay the fine and do the repeated free launch.

However, Solomonov did not mention the price of the launch, referring to a commercial secret. He only said it could be the matter of 10,000 U.S. dollars for one kilogram of cargo put into the orbit.

Ukraine's National Space Agency Gearing Up

Studying World Market

*LD2805203493 Kiev UKRINFORM in Russian
1506 GMT 28 May 93*

[By UKRINFORM]

[Text] [no dateline as received] The National Space Agency of Ukraine is studying the world market and establishing contacts with leading aerospace firms. Our space technology and resources interest many of them. For instance, talks were held with representatives of the Department of Trade and Industry of Great Britain who deal with space technologies and also with well-known companies Rolls-Royce Plc, Lucas Aerospace, British Aerospace, and others. A meeting was also held with experts from the American company Rockwell International. Discussed was joining efforts, finance, technologies, and intellectual potential in order to solve problems of space communications, remote geographical surveys, and ecologic monitoring in the interests of mankind. Issues concerning the use of Ukraine's potential in the inter-state cooperation were discussed.

Signs Deal With Russian Counterpart

*LD1206152793 Kiev Radio Ukraine World Service
in English 0000 GMT 12 Jun 93*

[Text] The Pivdenne, (Southern), Design Bureau, Ukraine's major space rocketry designer, signed state contracts with Russia's space agencies to finance multinational space exploration projects. The projects undertaken within the framework of the CIS interstate program will reportedly involve the (AUOSSMK1) [Automatic General Purpose Orbital Station] spaceship and the (Cyclone) carrier rocket, both designed and manufactured in Ukraine by the Pivdenne engineering plant production association.

In a parallel action a previously drafted joint Russian-Ukrainian program is under way with a team of Dnepropetrovsk space experts currently supervising preparations at the Russian space center in Plesetsk, Archangelsk region, for launching six Cosmos series satellites aboard a single (Cyclone) carrier rocket. The launching operation is financed by Russia.

CONVENTIONAL FORCES IN EUROPE

Russia Defense Ministry Meeting Views Treaty Fulfillment

*LD3105224393 Moscow ITAR-TASS World Service
in Russian 1415 GMT 31 May 93*

[by ITAR-TASS correspondent Sergey Ostanin]

[Excerpt] Moscow, 31 May—Today's sitting of the collegium of the Russian Federation Defense Ministry discussed some topical problems of life and activity of the Armed Forces of Russia. The press bureau of the Ministry [passage omitted] said that the fulfillment of clauses of the treaty on conventional armed forces in Europe was also discussed. The members of the collegium noted that the work on the realization of the clauses of the treaty regarding troops and reduction of arms and equipment is going on in accordance with approved plans. Levels of arms which have been determined by the treaty for Russia provide, on the whole, for the necessary defense requirements on the European territory of the country and correspond with the planned scenario of the Russian Armed Forces for 1 January 1995.

At the same time the collegium of the Defense Ministry expressed concern over the fact that regional restrictions which have been provided for by the treaty do not take into account radical changes in the military-political situation which have taken place on the continent. In some cases Russia is forced to distribute arms and equipment of the land forces on the territory of the European part of the country without taking into consideration the interests of reliable defense.

The collegium also adopted a decision to the effect that the Russian Defense Ministry will take part in elaborating the federal program for salvage of arms and equipment until the year 2000. A special program of reduction, elimination, and salvage of conventional arms was included in this program as a separate sub-program.

Lithuania Finds It Has a 'Mysterious Debt'

*WS1006113493 Vilnius LIETUVOS AIDAS
in Lithuanian No 94, 19 May 93 p 5*

[Article by newspaper correspondent Arminas Norkus: "Grachev Comes for the Debt"]

[Text] Everything is changing so fast these days. Only a year ago, Lithuania did not even think that it would have to pay some mysterious debt to the occupationist Army. At that time, the Ostankino and Russian television stations, speaking about the negotiations between Russia and Lithuania on the withdrawal of the Soviet Army, would mention the greatest obstacle—Lithuania's demand for compensation for the damage done by the Army over 50 years of occupation. Their argument was that it was the Soviet Union that had occupied Lithuania, and that Russia had nothing to do with this. Russia did not want to remember that it had declared itself the USSR's successor. It may have wanted to inherit only rights rather than commitments.

On Monday [17 May], the Russian and Ostankino televisions announced that during his visit to Lithuania Russian Defense Minister Pavel Grachev would discuss compensation for the military property the Army was leaving behind. There is no more talk about the compensation that Lithuania was going to demand from Russia. Everything has turned upside down: It is Lithuania that is indebted to Russia today. Currently, the robber is demanding a reward, and he may receive it.

What makes this possible?

Recent events demonstrate this. Some top Lithuanian officials look Moscow in the mouth before doing or saying something (to put it mildly, the rude ones speak about another part of the body). Examples are more than plentiful.

The northwestern group of the Russian Army holds exercises during which it practices the occupation of the Baltic states within 48 hours. While Latvia and Estonia protest this, Lithuanian authorities and military officials maintain a silence, as though their lips were sealed. It is difficult to understand why the Lithuanian Army holds simultaneous drills. Are our commanders preparing to defend the country from their Eastern neighbor, or are they marching hand in hand with Moscow? (Different rumors are spreading already.) Suppose nothing happened, and our military simply did not know what the Russian operations units were doing here. However, it could have at least supported Latvia and Estonia. Since our authorities did not do anything, this means that they either backed Moscow's actions or did not oppose them.

Here is another example of kowtowing to Moscow. A Lithuanian representative (incidentally, the chairman of the LDLP [Lithuanian Democratic Labor Party] Seimas faction) returns from the European Council and begins to relate that Latvia was not admitted to this organization because it violates human rights and has discriminating laws. Listening to such explanations, one begins to wonder: What has happened? Has Europe begun to reiterate the words of Moscow's most ardent imperialists? Nothing of the sort. It turns out that the European Council's opinion on human rights in Latvia (and in Estonia, where the citizenship law is stricter) was that even some Western countries could envy their situation. The reason is simple—Latvia will be admitted after the free elections. Moreover, Russia, which has also applied for the European Council membership, must meet the same requirement.

It becomes clear at last that only Lithuanians are dancing to the tune of the Russian imperialists. One can only admire Russia's insight: The interstate agreement was not signed last September, as if Russia had known that power would be assumed by those who do not demand debts, but pay them themselves.

Grachev told a press conference on Monday: "The aim of my visit to Lithuania is the withdrawal of the Russian Army, compensation for the property it is leaving here, and the signing of the interstate agreement that regulates these issues. I will ask Lithuanian President A. Brazauskas and Defense Minister A. Butkevicius to speed up the preparation of this agreement."

Grachev is hastily milking money from the current Lithuanian government.

Is the latter really so heavily indebted?

Latvia Dissatisfied With Russian Troop Withdrawal

Russia Said Reluctant To Turn Over Military Housing

*WS0906094493 Tallinn BNS in English 0759 GMT
9 Jun 93*

[Text] Riga, June 08, BNS—Russian officials balked at chances to handover military housing Latvian authorities,

as required by laws, Ilgonis Upmalis, head of the bureau monitoring the Russian troops withdrawal, told BNS.

All the houses constructed by the former Soviet Union's Defense Ministry after 1940 are now the property of the Republic of Latvia under a Latvian Land Act that became effective April 5, Upmalis said.

The deadlock situation with housing units serves as a basis for conflicts and misunderstandings between Russian and Latvian military, he said.

Recently, Russia's Northwestern Army Commander Leonid Mayorov directed a letter to Latvian parliament Chair Anatolijs Gorbunovs protesting the "uncivilized approach" toward property problems exposed by the Latvian military.

The Latvian Home Guards and the national military were accused by the Russia army of arbitrarily occupying homes left by Russian military in the Purvciems residential district of Riga. Such cases have a tendency to become more frequent, a press release says.

Janis Kina, a senior Latvian Air Force official, said that there were two such cases when Latvian air force officers moved in vacated flats in Purvciems. They occupied the flats before the local governments had officially taken over the homes. Latvian officers have priority right to be in the homes of repatriated Russian military, in compliance with a Latvian government resolution of 1991.

The Latvian Home Guard has no information about the Home Guards' alleged participation in the event.

Russian Statement Termued 'Open Threat' to Riga

*WS1406143993 Tallinn BNS in English 1153 GMT
12 Jun 93*

[Text] Riga, June 11, BNS—President Boris Yeltsin statement of June 10 is another Russian attempt to find a pretext for ignoring the demand in the Helsinki 1992 Final Act on early, orderly and complete withdrawal of Russian troops from the Baltic states, says a Latvian Ministry statement of June 11.

Latvia categorically rejects attempts to bind the unlawful presence of Russian troops on Latvian soil to any preconditions, the statement says.

As reported, Yeltsin said that Russian troops would not be withdrawn from Latvia and Estonia unless social conditions for the repatriating military were prepared and the human rights strictly observed in those countries.

Yeltsin pronounced the statement at an operative meeting of the Russian Armed Force Command Thursday.

Russia once again tries to back its stand with accommodation problems although a protocol on tackling these questions was vised during Latvian-Russian talks in Moscow June 2.

Latvia is also concerned with a today's statement of the Russian Foreign Ministry, dealing with alleged attempts of the Latvian Home Guard on Russian servicemen in Latvia. Russian servicemen might be authorized to carry and use firearms on the Latvian territory, the Russian statement says.

The statement contains an open threat to the Latvian state, the Latvian Foreign Ministry states. If members of any Latvian military formations break the law they bear a legal responsibility for it. Such occasions by no means free Russian military from observation of internationally agreed stay regulations.

In any case, the best means how to avoid any conflicts in the future is a speedy and complete withdrawal of Russian troops from the Latvian territory, the Latvian Foreign Ministry statement ends.

Baltic Ministers Condemn Russian Withdrawal Policy

WS1406145693 Tallinn BNS in English 1536 GMT 12 Jun 93

[Text] Tallinn, June 12, BNS—A foreign ministers meeting of the North Atlantic Cooperation Council in Athens today among other issues also discussed the pullout of Russian troops from the Baltics. The main topics at the meeting were peacekeeping efforts, political instability in Europe, and problems of the former Yugoslavia.

Estonian Foreign Minister Trivimi Velliste, who held a speech at the meeting, focused on security problems in the Baltics. These problems were also mentioned in the final document of the foreign ministers meeting. Velliste pointed out what he called a regrettable state of affairs when a whole year after the adoption of the final document of the CSCE Helsinki conference the deadlines of pullout of Russian troops from the Baltics cannot still be named.

The foreign ministers of Latvia and Lithuania condemned Russia's continuing efforts to link the issue of the troop withdrawal with other topics. The demands by Estonia, Latvia and Lithuania were supported by the foreign ministers of Norway, Denmark and the Ukraine.

Russian Foreign Minister Andrei Kozyrev in response pointed at difficulties of socio-economic character arising in connection with the restationing of army troops. He said Russia hopes to get support from members of the NACC in resolving these problems.

In a clear reference to Estonia and Latvia, the Russian foreign minister termed as inadmissible the wishes, "evident in some cases," to establish homogeneous (mono)national states, even, he added, if this is being done "white gloves on."

The Estonian foreign minister also had meetings with his counterparts from Portugal and Greece counterparts. The ministers of the three Baltic countries had a brief meeting with U.S. Secretary of State Warren Christopher, a spokesman at the Estonian Foreign Ministry told BNS.

Troop Withdrawal From Estonia Proceeding Smoothly

Estonia Pledges 'Practical' Help

WS1406084493 Tallinn BNS in English 1531 GMT 10 Jun 93

[Text] Tallinn, June 10, BNS—Estonia has pledged to give practical assistance to help Russia continue with its troop withdrawal, said Juri Luik, chief Estonian negotiator.

"Estonia understands that some issues of the practical kind may arise when Russia is pulling out its troops, even if there are no political problems," Luik told BNS. "Provided that no political pressure is exerted upon us, Estonia will agree to help Russia overcome these hardships."

The delegations at the talks Tuesday signed a protocol that may lead to an agreement on the deadline for the troop withdrawal.

According to the document, Russia must give Estonia a list by June 25 specifying "its needs" for ensuring its pullout of the troops. Estonia then has an unspecified amount of time to summarize the means that the country and its Western partners can to allocate for the Russian troop withdrawal. After that delegates expect to set the final deadline for the pullout.

As for other withdrawal issues, an agreement between Estonia and Russia on the withdrawal of Russian troops is almost ready.

Many countries have shown an interest in supporting Estonia financially in order to speed up the process of withdrawal, Luik said. But he added that the amounts of money can be specified only after detailed data has been provided.

The head of the Estonian delegation also met Russia's Deputy Foreign Minister Anatoliy Adamishin in Moscow Wednesday. Luik said both parties at the meeting agreed that the withdrawal of Russian armed force units from Estonia is a key issue in improving the bilateral relations. "The Russian Foreign Ministry is interested in resolving this problem as quickly as possible," Luik said.

Luik and Adamishin also discussed the political situation in both countries. Luik added that the local elections law passed in Estonia was "not of the kind that the Russian institutions of power were waiting for. There are laws both in Estonia as well as in Russia that are not to the other party's liking."

Military Factories Handed Over

WS1606102393 Tallinn ETA NEWS RELEASE in English 2004 GMT 15 Jun 93

[Text] Tallinn, June 15—Two Russian military factories have been turned over to Estonia's Ministry of Economics, the Minister of Reform, Liia Hanni, told a news conference on Tuesday.

Former numbered factories 7 and 8 are situated in Tallinn and Paldiski and will be reorganised into state-owned companies, Hanni added.

The ex-military ship repairing factory in Tallinn is a shipyard specialised on repairing submarines, fishing boats and cargo ships. It is a profit-making factory with good perspectives at the Baltic market, Hanni said.

Factory No 8 at Paldiski which has specialised in metal constructions building is in a less fortunate position and needs a new business plan. Ninety per cent of their orders still come from Russia and at very many cases no money has been transferred for services rendered, Hanni said. The easiest way out would be closing down the factory which, however, would leave 126 people unemployed, Hanni said. None of them are connected with the Russian military.

Belarus Going Slowly Due to Housing Shortage

*WS3105132393 Minsk Radio Minsk Network
in Belarusian 0700 GMT 31 May 93*

[Text] The withdrawal of a Russian Navy training unit from Pinsk has been postponed. There are no problems with redeploying the equipment; however, problems of social care for the servicemen's families remain unresolved. Some 800 officers and ensigns have found themselves at a crossroads, having no guarantee of receiving accommodation at the site of their future service. Another 80 servicemen have no roof over their heads. Thus, the Navy men will remain in Pinsk after 1 June.

NUCLEAR TESTING

Russian Concerns Over U.S. Nuclear Testing

Letter Sent to Senator

*PM1506092593 Moscow ROSSIYSKAYA GAZETA
in Russian 11 Jun 93 First Edition p 7*

[Own Information report: "Planting of 'Nuclear Mushrooms' Must Be Postponed. Appeal to B. Clinton"]

[Text] In connection with U.S. President Bill Clinton's recent statement regarding the possibility of the United States' resuming nuclear testing Nikolay Vorontsov, president of the "GLOBE-Russia" (the Global Legislators' Organization for a Balanced Environment) interparliamentary committee, sent a letter to Senator John Kerrey, president of "GLOBE-U.S.A."

In his message he pointed out that this decision by the White House head not only could end the U.S. moratorium on U.S. nuclear testing announced last year but would also automatically set a precedent enabling other states to resume testing. In this connection the insistent efforts by legislators, scientists, nongovernment organizations, and citizens of other countries pressing for talks among all the nuclear powers on a universal, total ban on testing would prove pointless.

The president of "GLOBE-Russia" drew his U.S. counterpart's attention to the fact that the GLOBE General Assembly adopted a document last year in Lisbon calling for the universal banning of nuclear tests. On behalf of Russian members of parliament he asked that the contents of his letter should be properly considered in the light of this militarily and environmentally tricky and delicate problem.

Official Comments on Test Freeze

*LD1106155293 Moscow Radio Moscow World Service
in English 1310 GMT 11 Jun 93*

[Text] The nine-months American freeze on nuclear tests ends on 1 July. Reports have appeared in the mass media in America and other countries about Washington's intention to not extend it. A Radio Moscow correspondent has met with (Oleg Sakhalov), who heads Russia's Foreign Ministry's department for disarmament and control over military technologies. Here is what he said when asked what such a step by Washington could lead to:

[Sakhalov in Russian with superimposed translation]
When deciding on whether to resume nuclear tests or not,

the United States, as well as all other nuclear countries, should always keep in mind what aftermaths this could have for the Nuclear Nonproliferation Treaty. It seems to me, continued (Oleg Sakhalov), this step should be seriously weighed because the result could be the undermining of the treaty and its erosion. Besides, the nonnuclear countries would have a pretext for taking action that doesn't fall in the line with the regime of nuclear nonproliferation. So, from the point of view, and consequently from the point of view of security in the world, the decision on nuclear tests should be exceedingly responsible and carefully weighed. [sentence as heard] We believe, said the representative of Russia's Foreign Ministry, that in the event the freeze on the tests is over, and it's very important to keep in mind the prospect of fully banning them. As for Russia, it continues to favor a ban on all nuclear tests.

When answering a question about Moscow's stand in connection with the term of the Nuclear Nonproliferation Treaty expiring in 1995, (Oleg Sakhalov) said this:

[Sakhalov in Russian with superimposed translation]
Firstly, Russia is for extending the treaty, and secondly, making it permanent if that proves possible. That would be in the interests of a nonnuclear world, in the interests of international strategic stability, and indeed in the interests of all countries.

Moratorium on Nuclear Tests To Be Permanent

*LD0306113793 Moscow Radio Moscow World Service
in English 1100 GMT 3 Jun 93*

[Excerpt] Moscow is ready to make its moratorium on nuclear tests permanent. This was said by the head of the Russian Foreign Ministry Department on Disarmament, Oleg Sokolov, in a Radio Moscow interview.

The term of the American moratorium on nuclear explosions expires on 1st July.

Speaking in this context, Sokolov expressed Russia's readiness to begin consultations with the United States on the matter. In his opinion, talks on a complete ban on tests conducted within the framework of the Geneva conference on disarmament should be stepped up. [passage omitted]

'Atomic Soldiers' Appeal To End Testing

*934F0671A Moscow ROSSIYSKAYA GAZETA
in Russian 26 May 93 p 3*

[Appeal signed by veterans of nuclear tests on Novaya Zemlya: "'Atomic Soldiers' Appeal To End Nuclear Tests"]

[Text] On 1 July the moratorium period declared by the United States for underground nuclear explosions will expire. The other day Radio Liberty reported that "President Clinton is inclined to renew limited nuclear testing." This means that immediately after Nevada, explosions will start to thunder on the test ranges of Russia and France. This is why a group of "atomic soldiers," as veteran testers of nuclear weapons are called, sent a letter of appeal to colleagues in the United States, Great Britain, France, and China.

There are those among us who prepared the USSR's first underwater nuclear blast, and who subsequently tested combat nuclear torpedoes, the letter states. There are those who supported testing in the air, who accompanied the carrier to the release point, and who more than once entered a radioactive cloud on dosimetric reconnaissance aircraft and helicopters.

In the tense situation of that time we did not give much thought to the consequences of such experiments—for nature, for the health of millions of people, and for our own health. Each of us acted in the firm belief that this was necessary to strengthen the defense of the country, the letter emphasizes. Yes, we considered ourselves, and consider ourselves, patriots of our country. But we were never hawks. The Treaty on Banning Nuclear Weapons Tests in the Atmosphere, Outer Space, and Under Water that was signed on 5 August 1963 in Moscow filled our hearts with the hope that the day was at hand when underground nuclear explosions will also be banned.

Thirteen years have already passed, and 117 countries have joined the treaty, but the hope, alas, has remained just a hope, and the total number of nuclear tests increased during this time from several hundreds to 2,000, and is continuing to grow. Unfortunately, we are compelled to state: The United States, the Soviet Union, Great Britain, France, and China did not undertake decisive steps to reach an agreement on the procedure and dates for universal and complete cessation of nuclear tests, although this kind of obligation ensues from the Nuclear Weapons Nonproliferation Treaty.

In trying to get the states of the third world to abandon nuclear ambitions and unconditionally to comply with the Nonproliferation Treaty, the countries of the "nuclear club" must go halfway—stop the modernization of their nuclear arsenals, and this means stop testing. This has long been the appeal to their governments by scientists-ecologists, parliamentarians, and public figures. Today, we veteran nuclear weapons testers from Russia are openly declaring this.

To reinforce this declaration we propose to organize an international conference on board a vessel sailing along the route Archangelsk-Novaya Zemlya archipelago-Murmansk. The motto and main idea of the forum: From a moratorium to a treaty on full and universal ban on nuclear tests. The approximate dates—from 31 July to 6 August 1993.

The conference is planned as a nongovernment conference. We are not asking for funds from the state budget to hold it, and the only thing we are counting on is encountering understanding and interested participation in the resolution of organizational questions on the part of the Ministry of Defense, the Main Staff of the Navy, Goskomsever [Committee for Social and Economic Development of the North], Ministry of Atomic Energy, and Ministry of Foreign Affairs of Russia.

The letter was signed by Lieutenant General Ye. Barkovskiy, Colonel Ye. Koptelov, Captain First Rank Ye. Lomovtsev, Colonel G. Shurpatenko, Colonel B. Bogoroditskiy, Lieutenant General G. Kudryavtsev, Captain First Rank V. Danilov, and other veterans of tests on Novaya Zemlya.

FRANCE

Alcatel-Espace's Space Electronics Strategy Explained

BR1006153793 Paris ELECTRONIQUE INTERNATIONAL HEBDO in French
27 May 93 pp 25-26

[Report on interview with A. Coello Vera, Alcatel Espace's payload electronics systems director, by unidentified journalist; place, date not given: "Hyperfrequency Circuits: 'Savings Through Thin-Film ASIC's Technology'"]

[Text] Payload satellite electronics systems must be as light as possible while remaining competitive and reliable, which is not easy in hyperfrequency circuits with very small production runs!

"We, too, are having to cut our costs today," says Augustin Coello Vera, Alcatel Espace's Payload Electronics Systems director. "It is a globalized market. The systems that sell will be those offering the best compromise between cost and weight," he says, adding that launching costs represent one-third of total satellite ownership costs (manufacturing and insurance make up the other two-thirds). That is a lot of money when you consider that every kg in a satellite costs approximately 300,000 French francs.

"Nor can we afford to make a mistake," says Coello Vera. "Once it has been launched, you cannot change the card. It must work! That is the problem with small production runs: They do not allow you to draw up malfunction statistics, as can be done for automobile electronics, for example," he adds. It should be noted, however, that the level of reliability aimed at today corresponds precisely to the lifetime of the satellite (three to 15 years, depending on the function). "Before costs were subject to so much pressure, we aimed at 100 percent reliability, and that was really very expensive."

"Our technological choices are intended to achieve both a weight reduction in the final application, and a cost saving in the system itself. Miniaturization is the only possible solution for us," he says, citing the example of a channel amplifier: "We managed to halve the weight and price by replacing the discreet components with three specific circuits made of gallium arsenide," he reveals. "Even though developing the circuits has been expensive, we achieved a much simpler system permitting us to make highly significant savings on control and testing operations, which account for one-third of all system costs. And the new system is just as reliable," explains Coello Vera.

The application uses an alumina substrate, and the circuit is manufactured using thin-film technology. "It is more expensive than thick-film technology, but is also better suited to hyperfrequencies. In particular, it allows us to minimize electrical loss, which—in the eyes of the client—largely compensates for the higher cost of the technology, because the lower the electrical loss, the lower the payload's energy requirements, and the lighter the solar panels of its power source. The weight question is really essential for us," concludes Coello Vera.

Same Objective Whatever the Technology: Integrate the Function To Cut Costs

The technologies utilized in manufacturing satellite payloads (a few units per year), in-flight navigation systems (several thousand products per year), and automobile modules (several hundred thousand units per year), vary as widely (thin film or thick film technology, printed circuits, etc.) as the applications for which they are designed.

However, the objective is always the same: reduce the bulk of the function to cut its cost.

GERMANY

Commentaries on Ukrainian Situation

Nationalistic Influences Discussed

AU1106143993 Berlin DIE WELT in German
11 Jun 93 p 4

[Lothar Ruehl commentary: "Ukrainian Conflict Over Goals"]

[Text] Ukraine as a subject of international politics is something new for all powers. So far, it has mainly been treated as an object. This attitude was also predominant in the West until recently. Its policy was primarily oriented toward Russia's requirements or risks. There is no doubt that in Kiev, where national consciousness and the feeling of being threatened by Russia has heightened, this one-sided orientation has contributed much to the political resistance to giving up the formerly Soviet strategic missile systems and their nuclear warheads that are stationed on Ukrainian territory.

The problem remains even after the talks between the German chancellor and U.S. Defense Secretary Les Aspin in Kiev: Even though the Ukrainian Parliament initiated the ratification procedure for the Moscow START I Treaty of 1991 (which Ukraine must join before it can be implemented) with hearings, it remains "risky to predict the outcome of this vote," as Aspin noted cautiously.

The Ukrainian politicians are oscillating between the goal of becoming "a nuclear-free country," which President Leonid Kravchuk announced, and the temptation to be the third largest nuclear power in terms of number of weapons, after the United States and Russia, but ahead of France, Great Britain, and China. With 46 modern SS-24 intercontinental missiles with 10 warheads each and 130 older SS-19 missiles with six warheads each, today there are 1,240 strategic nuclear warheads on 176 multiple attack missiles with an intercontinental range, plus between 400 and 600 other strategic nuclear weapons in cruise missiles and in the form of aircraft bombs in Ukraine.

General Tolubko, who served in the strategic missile forces of the USSR, is campaigning in Kiev for having these weapons taken under Ukrainian control—not to be destroyed but, on the contrary, to establish a national nuclear deterrent, above all against Russia. Today the strategic nuclear potential in Ukraine is already about twice that of France's; however, it is not under Ukrainian, but still under Russian control.

Russia disposes of these weapons, which Ukraine would have to take over to control itself. Operationally, this means decoding the electronic safeguards against the state in these missiles and cruise missiles and reprogramming the warheads to other targets, because up till now these long-distance weapons have been aimed at North America. In addition, it would be necessary to coordinate all the technical and logistical facilities for the support of these missile systems within a new organization.

It remains unlikely that the Ukrainians are planning such a coup against the missile and aircraft units manned by Russians. And it is not certain, either, that such a coup would be successful. However, in contrast to previous U.S. and Russian assumptions, it seems possible that the Ukrainians are able to solve the technical problems. After all, many ex-Soviet missile and nuclear engineers are Ukrainians.

Against this background the proposal to take the nuclear warheads off the missiles and cruise missiles and store them in Ukrainian depots under international control, which has been discussed in Kiev by the U.S. defense secretary with President Kravchuk and Defense Minister Morosov and also with Ukrainian members of parliament, seems to be a useful and generally acceptable compromise for a transitional period until these weapons are destroyed. It also seems that Kravchuk has already agreed to it on principle and is looking for a majority in the Ukrainian Parliament. However, the last word has not yet been spoken in Kiev.

It is possible that the Ukrainians will try to prolong the matter, even though as early as on 23 May 1992 the Ukrainian Government committed itself to ratifying the Moscow START I Treaty "within the shortest possible period" and to join the Geneva Nonproliferation Treaty as a non-nuclear country. In any case, Ukraine is striving for special cooperation with the United States—and for material "compensation" in return for the promised nuclear disarmament. The Kiev parliament is demanding \$2.8 billion. According to U.S. estimates, only about \$1.8 billion would be necessary to destroy the nuclear weapons in Ukraine. However, only \$175 million has been firmly promised by the United States so far—thus, the discrepancy is large. Finally, Kiev is striving for a U.S. security guarantee against Russia.

In Kiev Aspin also promised cooperation in the military field. However, a formal security guarantee, which would be binding on the United States and would represent a military alliance, will not be accepted by the Senate in Washington. This would be a serious strain on U.S. policy toward Russia, which insists on the unconditional surrender of the former Soviet weapons. Thus, Kiev will be content with less. The West, however, will have to give more in the end than it was willing to give at the beginning.

Assessing the View From the Pentagon

AU1506153593 Duesseldorf *HANDELSBLATT*
in German 14 Jun 93 p 2

[Viola Herms Drath commentary: "Unpredictable Security"]

[Text] Even though a revision of U.S. security policy is a priority in the Pentagon because of the cutbacks in the defense budget and the changes in the global concert of powers, Clinton's strategy for promoting world peace by means of military and economic stabilization, including the active support of democracy and human rights, has not managed to become more than a draft. Instead of considering prospects for the future, as planned, the administration sees itself confronted with conflicts in Bosnia, Somalia, and other Third World countries, which require immediate solutions.

During the past turbulent week, this meant sending 300 U.S. soldiers to Macedonia to prevent a spreading of the Bosnian conflict—which was decided at the NATO ministers' conference in a seaside resort near Athens—and the use of U.S. combat aircraft in Somalia against the arms depots and the radio station of Somali tribal leader Aidid.

Russia's Arms Trade Develops Unbraked

In addition, it means constant negotiations with North Korea about the Nuclear Nonproliferation Treaty. However, it also means a decision about underground nuclear tests, which U.S. Congress does not welcome at all.

It is not enough that, despite Washington's protests, the Russians continue to expand their arms trade, which amounted to \$3.4 billion in 1992 and also includes Iran, which is being boycotted by the United States, or that hundreds of Russian military advisers are active in Libya, Syria, and Iraq: Now Moscow also wants to revise the 1990 treaty on the control of conventional forces in Europe, which was negotiated through years of patient talks. The Russian proposal envisages a redistribution of its reduced military forces in the West, which used to be lined up against NATO, to its southern flank. Apart from the renewed outbreak of the conflict between the Armenian enclave and the Muslims in Azerbaijan, there are not only disputes with Georgia about the province of Abkhazia, but also with Moldova and, in particular, Ukraine. Since Kiev considers itself to be a successor state to the Soviet Union, just like Moscow, on this basis it insists on its claim to the Crimea and is using nuclear weapons as a political bargaining chip. Worried that a revision of the complex treaty would batter the agreement and even further destabilize the region bordering on Turkey, Clinton's defense experts have reacted with corresponding reticence.

Not without good reason did U.S. Defense Secretary Aspin call on his Russian counterpart, General Pavel Grachev, to reach a compromise in view of the deepening rift between Russia and Ukraine concerning the START Treaty and the disputed nuclear weapons. And while Aspin visited the Ukrainians in person to persuade them to hand over the remaining 1,800 missile warheads, if necessary to an international organization like the United Nations or the CSCE, he was fully aware that the pending signing of the

START Treaty would not necessarily be linked to a declaration of nuclear abstinence, despite high Western financial aid and security guarantees.

An Offer to Ukraine

However, what worries the Pentagon much more at the moment is the collision course that Kiev and Moscow are steering as regards the issue of nuclear weapons. For this purpose, contacts between the U.S. and Russian military

are to be established for the training of troops for peace-keeping operations. Hand in hand with that there is the exchange of intelligence information.

Realizing that the Ukraine Parliament would probably be more inclined to approve the handing over of the nuclear weapons if it knew the United States were on its side, a similar proposal was also made to Ukraine. However, Pentagon strategists are aware that international political structures have become more unpredictable and that the representation of international interests can be carried out only at the multinational level.

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